

# STR-A27/D209/D259

## SERVICE MANUAL

STR-A27, STR-D209 and STR-259 are the tuner and amplifier section in LBT-A27CDM, LBT-D209CD and LBT-D259CD respectively.

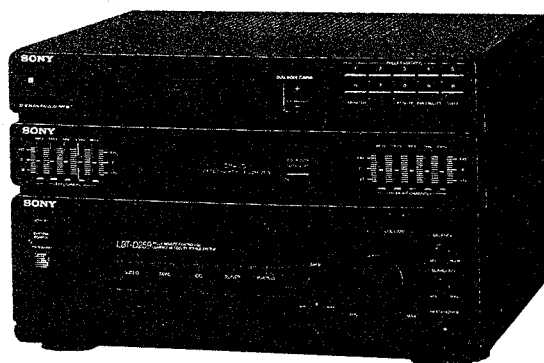


PHOTO: STR-D259

7111  
 Canadian Model  
 STR-D259  
 AEP Model  
 UK Model  
 STR-D209/D259  
 E Model  
 Australian Model  
 STR-A27

### SPECIFICATIONS

#### Stereo FM-AM receiver

##### Tuner

##### System

FM stereo

FM/AM superheterodyne tuner

##### FM tuner section

##### Tuning range

87.5 to 108 MHz (EXCEPT EE)

65.0 to 74.0 MHz (EE)

##### Antenna

75 ohms unbalanced

##### Intermediate frequency

10.7 MHz

##### AM tuner section

##### Tuning range

MW: 530 to 1710 kHz (Canadian model)

522 to 1611 kHz (Italian model)

531 to 1602 kHz (9 kHz step)

531 to 1710 kHz (10 kHz step)

531 to 1602 kHz (Other models)

LW: 153 to 279 kHz

SW: 5.95 to 17.90 kHz (Mideasten model)

##### Antenna

AM loop antenna

External antenna terminal

##### Intermediate frequency

450 kHz

#### Amplifier

##### DIN power output

30 W + 30 W (6 ohms, at 1 kHz)

##### Continuous RMS power output

35 W + 35 W (6 ohms, at 1 kHz, 5% THD)

##### Music power output

60 W + 60 W (6 ohms)

Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kohms
PHONO IN	Phono	3 mV	47 kohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereophone	Accepts headphones of 8 ohms or more

##### Frequency response

VIDEO: 15 Hz to 50 kHz  $\pm 3$  dB

#### General

##### Power requirements

220 - 230 V AC, 50/60 Hz (AEP, IT, EE, G)

120 V AC, 60 Hz (CND)

240 V-AC, 50 Hz (UK)

110 - 120 V/220 - 240 V-AC,

50 Hz/60 Hz (E, AUS)

##### Power consumption

100 W (AEP, AE2, IT, EE, G, UK)

115 W (CND)

170 W (E, AUS, AU2)

##### Mass

Approx. 5.9 kg

##### Dimensions

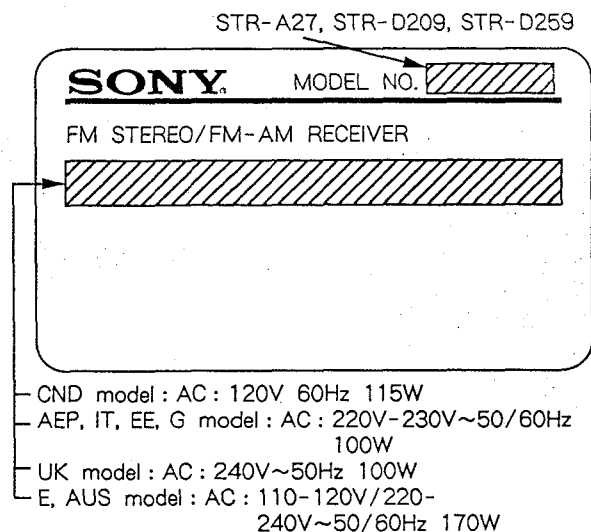
Approx. 355 × 225 × 330 mm  
 (w/h/d, including projections)



STEREO FM-AM RECEIVER  
**SONY®**

## — MODEL IDENTIFICATION —

(Specification Label)



**Note :** CND : Canadian model  
 G : German  
 IT : Italian model  
 EE : East European model  
 AUS, AU2 : Australian model

### • CAUTION

Be sure to use insulation sheet (A 4-959-364-01) when replacing power transformer because it is safely related part.

### SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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### ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

## SECTION 1 GENERAL

This section is extracted from instruction manual.

### Location of Controls

Refer to the pages indicated in parentheses for details.

#### Tuner

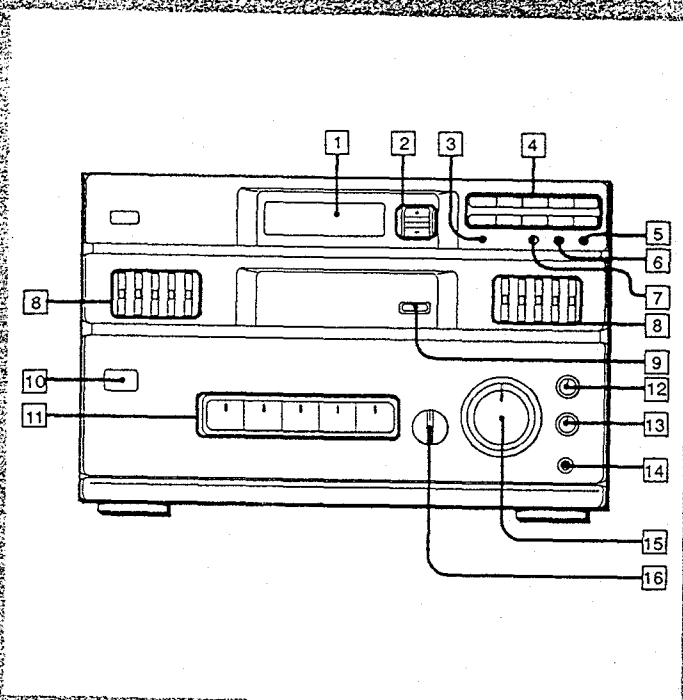
- 1 Display window
- 2 DUAL MODE TUNING + / - buttons (20, 22)
- 3 MEMORY button (22)
- 4 Numeric buttons (22)
- 5 SHIFT button (22)
- 6 BAND SELECT button (20)
- 7 ST/MUTE button (20, 22)

#### Graphic Equalizer

- 8 5 BAND GRAPHIC EQUALIZER controls (16)
- 9 EQUALIZER switch (16)

#### Amplifier

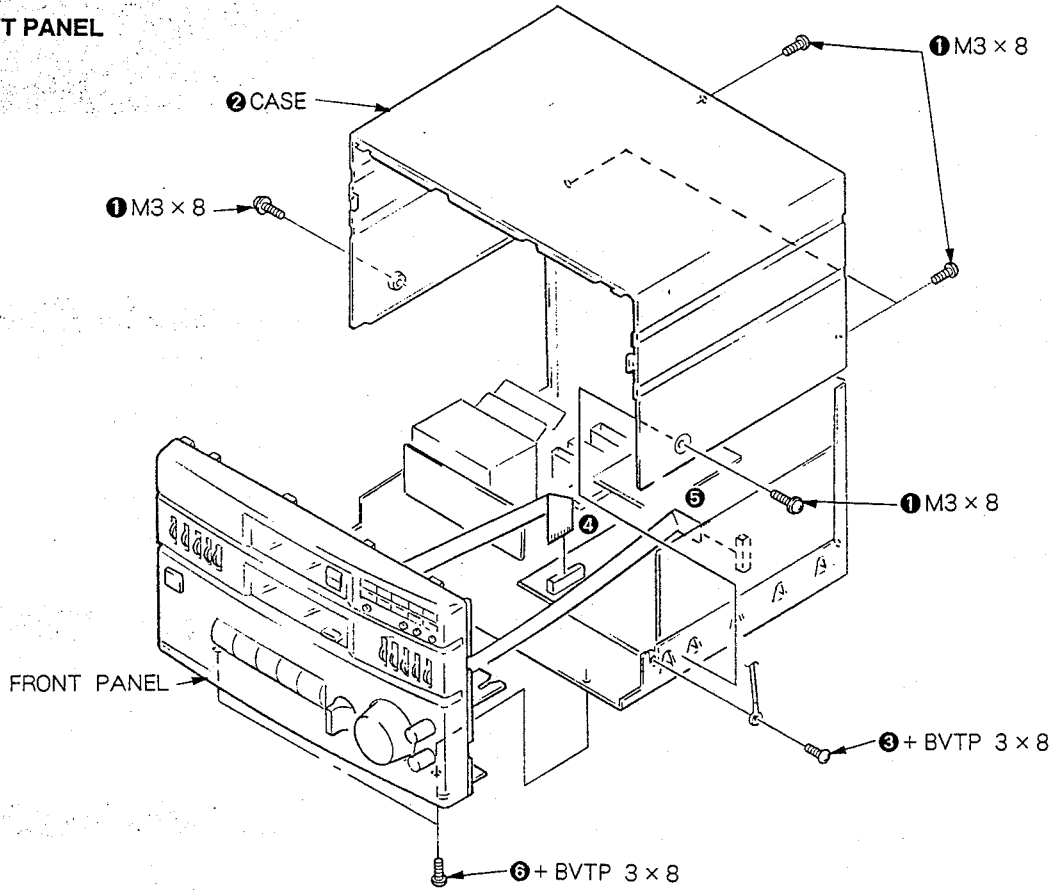
- 10 SYSTEM POWER button (14)
- 11 Function selectors and indicators (VIDEO/TAPE/CD/TUNER/PHONO)
- 12 BALANCE control (16)
- 13 SURROUND control (16)
- 14 HEADPHONES jack
- 15 VOLUME control and indicator (16)
- 16 DBFB (dynamic bass feedback) control (16)



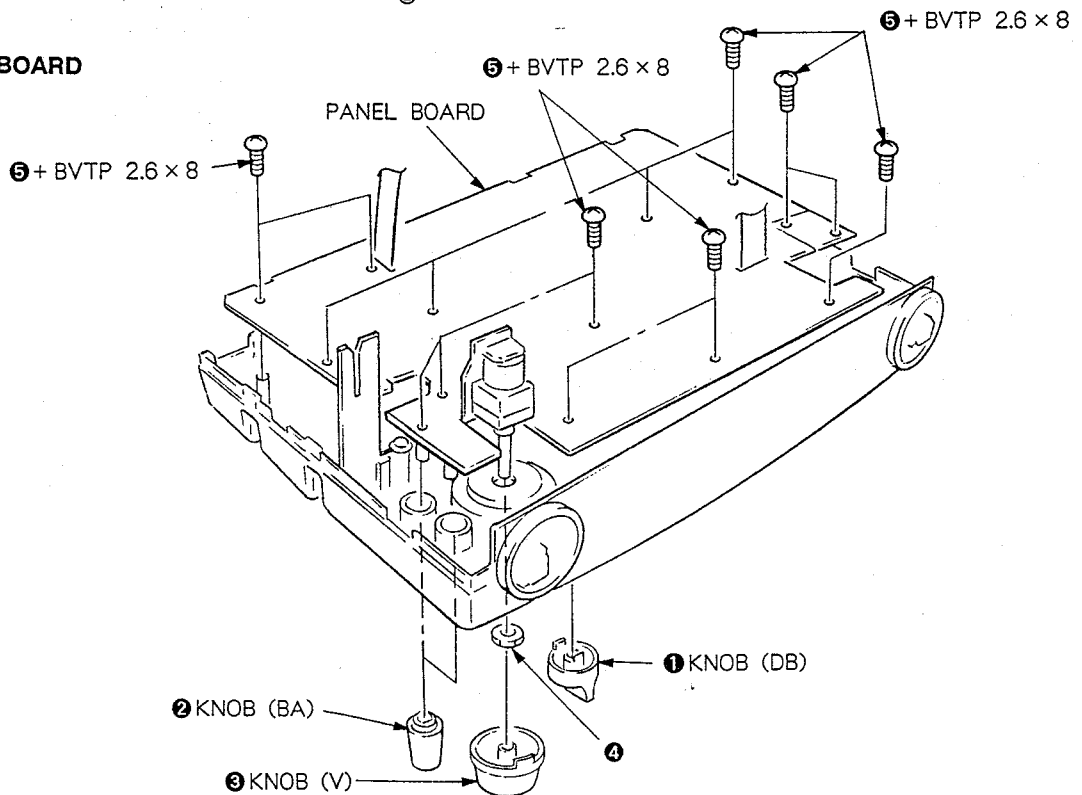
## SECTION 2 DISASSEMBLY

NOTE : Follow the disassembly procedure in the numerical order given.

### 2-1. FRONT PANEL

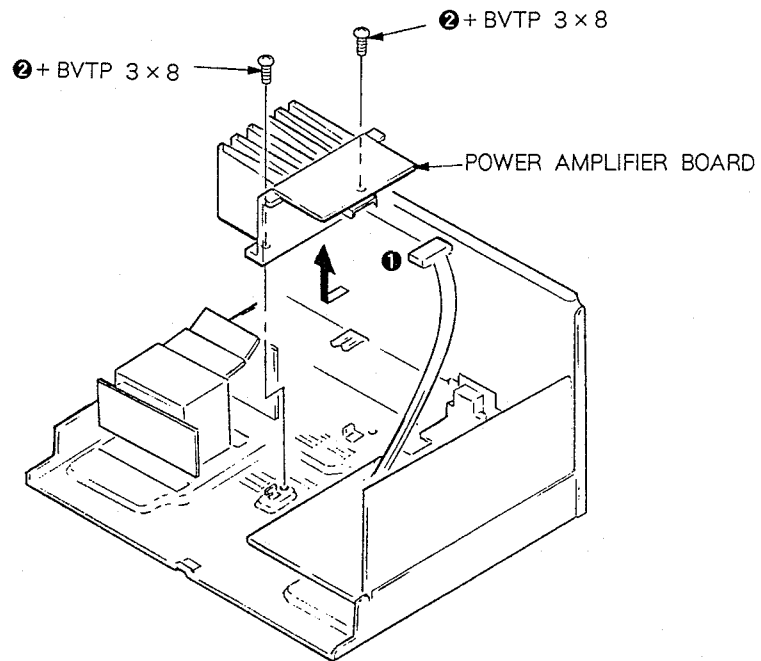


### 2-2. PANEL BOARD

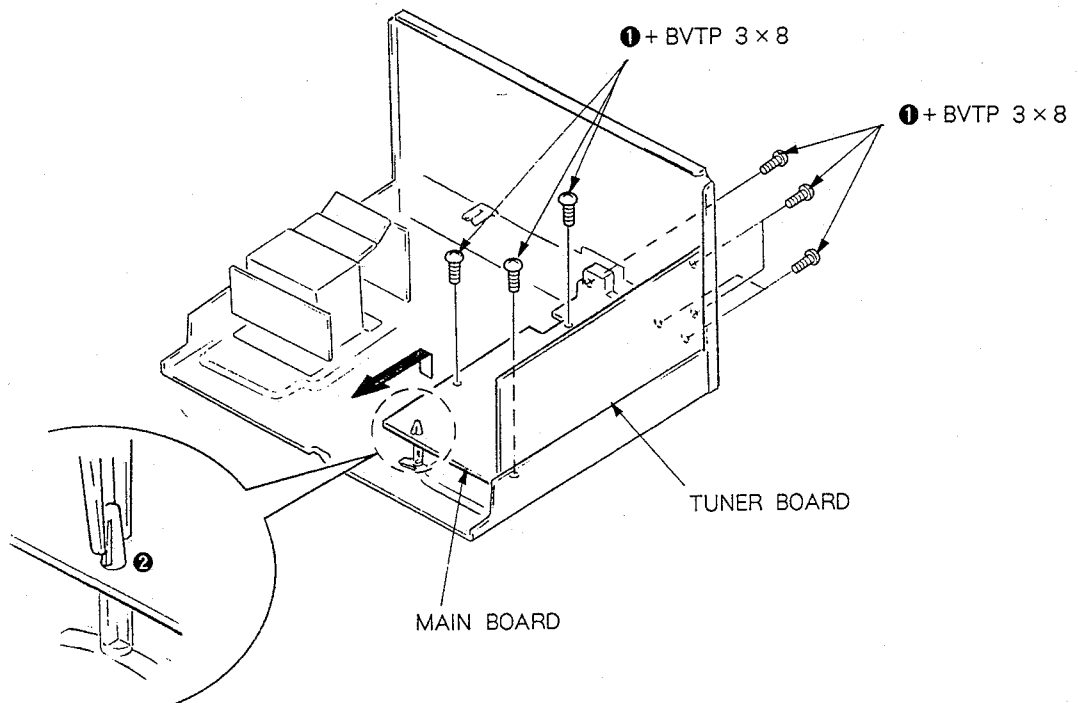




### 2-3. POWER AMPLIFIER BOARD



### 2-4. MAIN /TUNER BOARD



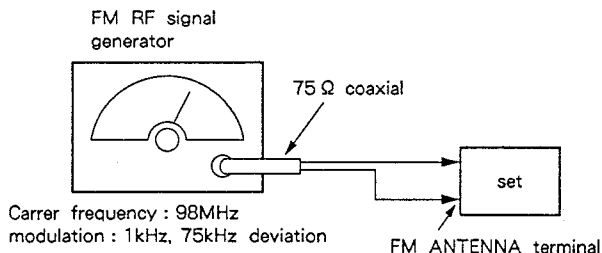
## SECTION 3 ADJUSTMENTS

**Note:** As a front-end (FE301) is difficult to repair if faulty, replace it with new one.

### TUNER SECTION

#### FM SECTION ADJUSTMENTS

Setting :



#### • TUNER OUT CHECK POINT

Speaker out receive 98MHz 60dB  $\mu$  (1mV) and set the SPEAKER out to 10dBs by VOLUME.

Speaker load : 6  $\Omega$  both CH

#### FM NULL Adjustment

Procedure :

1. Supply a 60dB  $\mu$  (1mV) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust T301 for 0V reading on the measurement point.

#### FM Tuned Indication Lighting Level Adjustment

Band : FM

ST/MUTE SW : OFF

Procedure :

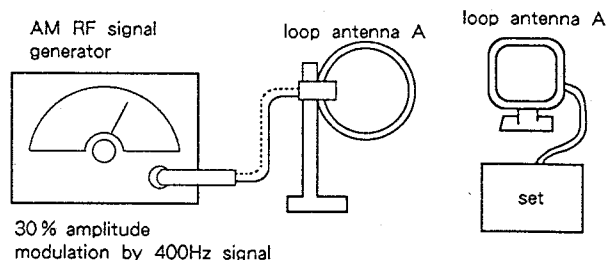
1. Supply a  $24 \pm 1 \mu V$  ( $20 \pm 4dB\mu$  (EE)) ( $25 \pm 4dB\mu$  (EXCEPT EE)) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV302 so that the FL601 **TUNED** light up.

Adjustment Location: main board

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by trimmer capacitors.

#### AM SECTION ADJUSTMENT

Setting :



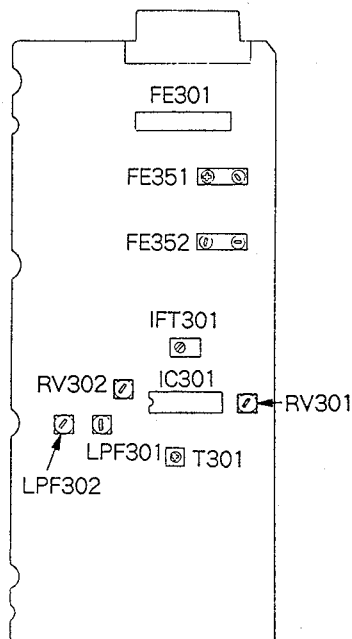
#### AM Tuned Indication Lighting Level Adjustment

Band : AM

Procedure :

1. Set loop antenna input level to 94dB $\mu$ /m, 1050 kHz and no signal tuned light should not on.
2. Tune the set to 1050kHz
3. Adjust RV301 so that the FL601 **TUNED** light up.

Adjustment Location: tuner board



# SECTION 4 DIAGRAMS

4-1. SCHEMATIC DIAGRAM — TUNER SECTION —

## Note on Schematic Diagram :

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

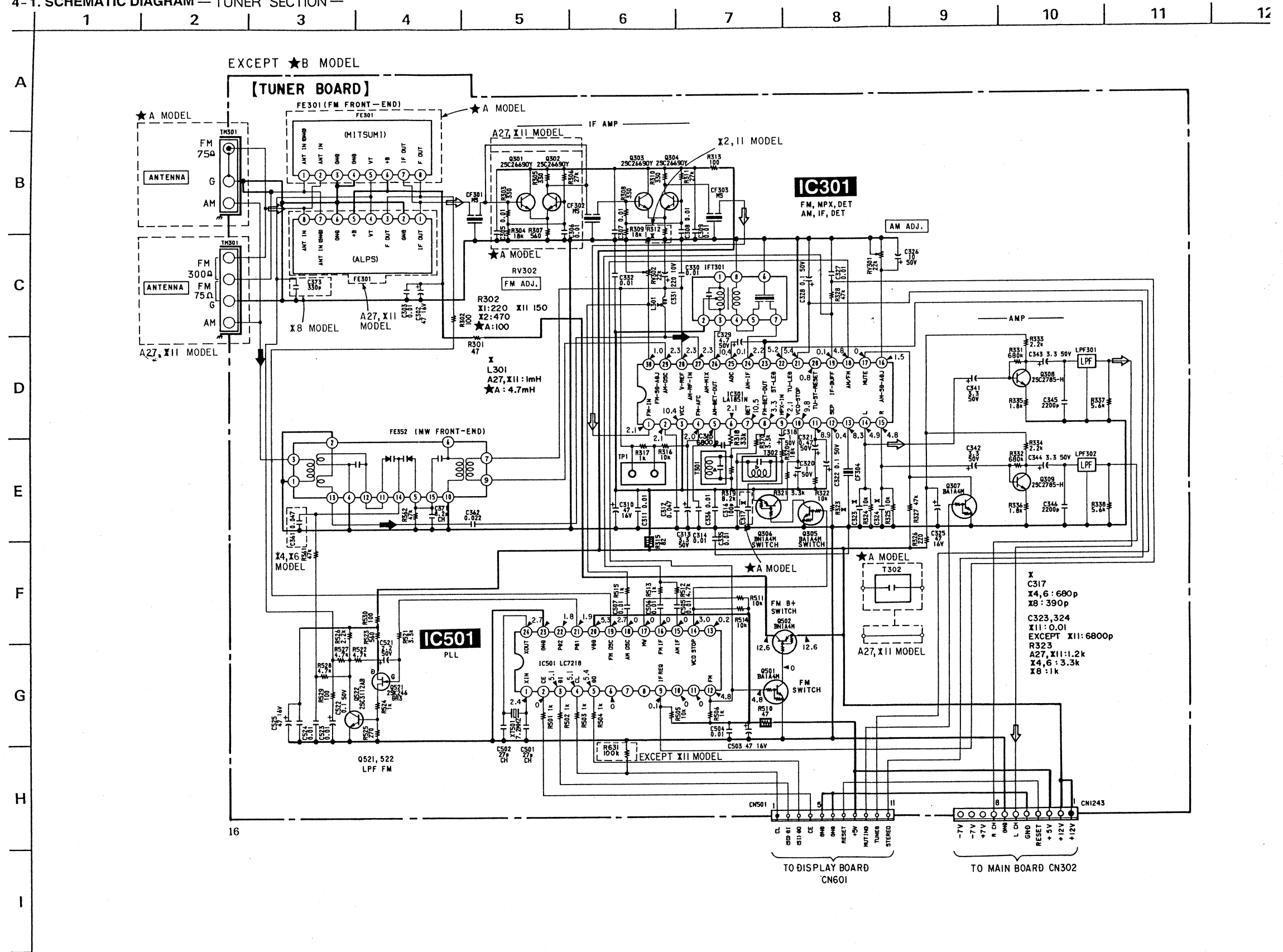
**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

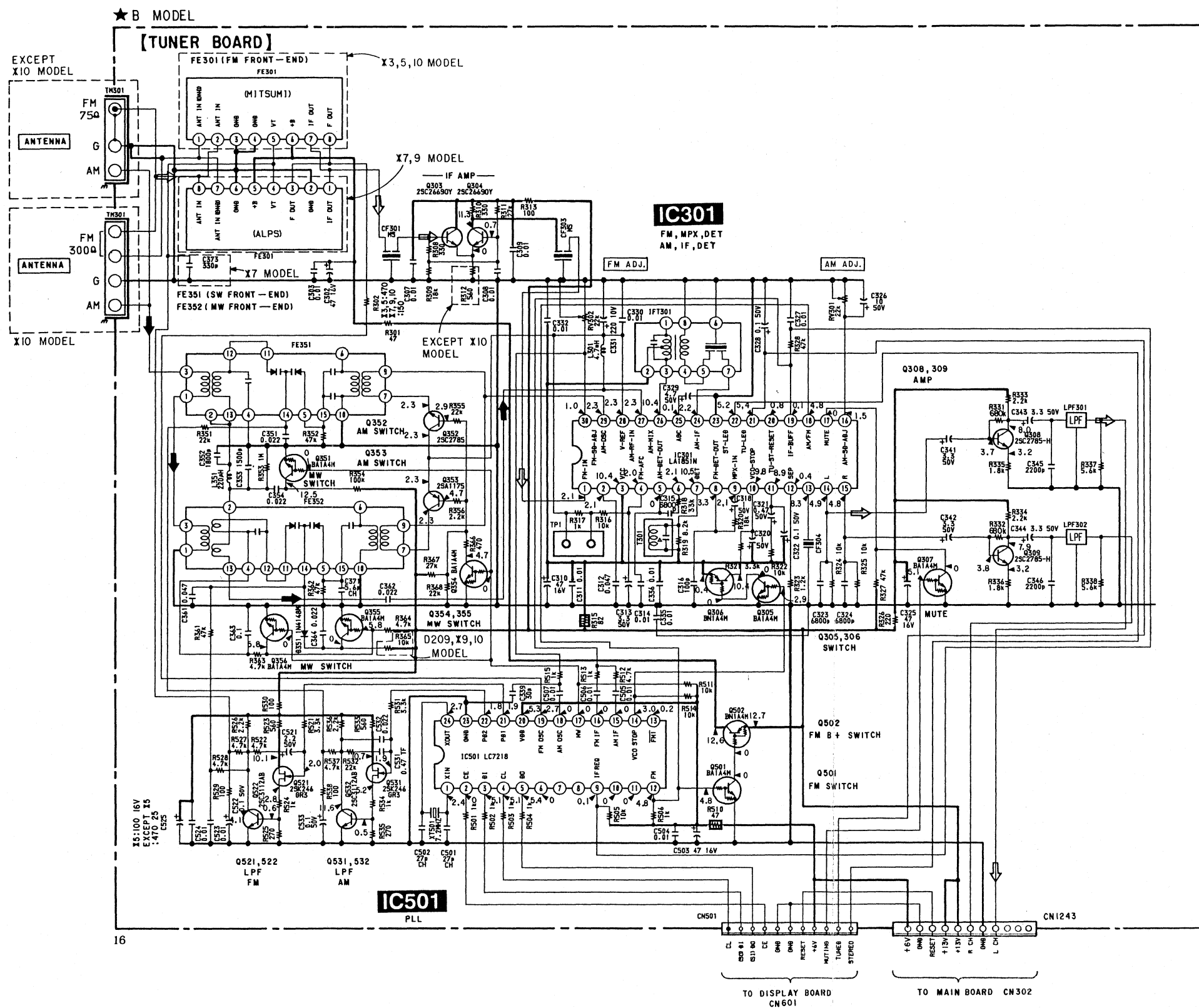
- : adjustment for repair.
- : B+ Line.
- : B- Line.
- no mark : FM
- Voltages are taken with a VOM (input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.  
 : FM  
 : AM

- Model name and destination shown by \*1 to \*11.
- \*1 : A27 : Australian
- \*2 : A27 : E, AU2
- \*3 : D209 : UK
- \*4 : D209 : Italian
- \*5 : D209 : East European
- \*6 : D209 : German
- \*7 : D209 : AEP, AE2
- \*8 : D259 : Italian
- \*9 : D259 : AEP, AE2
- \*10 : D259 : UK
- \*11 : D259 : Canadian
- ★A : \*4, 6, 8
- ★B : \*3, 5, 7, 9, 10
- ★C : 209 : AEP, \*3, 6, D259 : AEP, \*10

AU2 : AUS (with in PHONO MODEL)  
AE2 : AEP (with in PHONO MODEL)



13 14 15 16 17 18 19 20 21 22 23 24 25 26



Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D351 (B)	E-6	IC1306	C-12
D1201	E-19	IC1601	J-19
D1202	E-15		
D1203	E-15	Q301 (E)	D-3
D1204	G-15	Q302 (E)	D-3
D1205	C-14	Q303 (E)	E-3
D1251	G-19	Q303 (B)	E-7
D1302	E-12	Q304 (E)	E-3
D1303	E-12	Q304 (B)	E-7
D1304	E-12	Q305 (E)	I-3
D1305	E-13	Q305 (B)	I-7
D1306	E-13	Q306 (E)	I-3
D1307	J-23	Q306 (B)	I-7
D1309	I-23	Q307 (E)	H-4
D1311	I-24	Q307 (B)	H-9
D1316	H-12	Q308 (E)	H-4
D1317	J-12	Q308 (B)	H-8
D1318	D-13	Q309 (E)	H-4
D1319	D-14	Q309 (B)	H-9
D1321	B-27	Q351 (B)	D-7
D1322	C-27	Q352 (B)	D-7
D1323	E-13	Q353 (B)	E-7
D1324	E-13	Q354 (B)	E-7
D1341	I-14	Q355 (B)	E-6
D1345	I-13	Q356 (B)	E-7
D1347	J-16	Q501 (E)	F-1
D1354	B-25	Q501 (B)	F-6
D1355	B-25	Q502 (E)	F-1
D1368	D-14	Q502 (B)	F-6
D1369	D-13	Q521 (E)	C-4
D1370	J-24	Q521 (B)	C-9
		Q522 (E)	B-4
IC301 (E)	G-2	Q522 (B)	B-9
IC301 (B)	G-7	Q531 (B)	D-8
IC501 (E)	E-4	Q532 (B)	C-9
IC501 (B)	E-9	Q1201	E-19
IC1001	D-11	Q1202	H-18
IC1002	G-11	Q1203	H-18
IC1003	I-11	Q1204	H-15
IC1201	F-20	Q1251	G-19
IC1202	F-15	Q1301	J-23
IC1302	J-12	Q1302	J-13
IC1303	I-14	Q1304	I-15
IC1304	H-13	Q1305	I-15
IC1305	H-14		

(B) : ★B

(E) : EXCEPT ★B

Note on Mounting Diagram :

- : Parts extracted from the component side.
- : Pattern on the side which is seen.

Model name and destination shown by \* 1 to \* 11.

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\* 6 : D209 : German

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\* 9 : D259 : AEP, AE2

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★A : \* 4, 6, 8

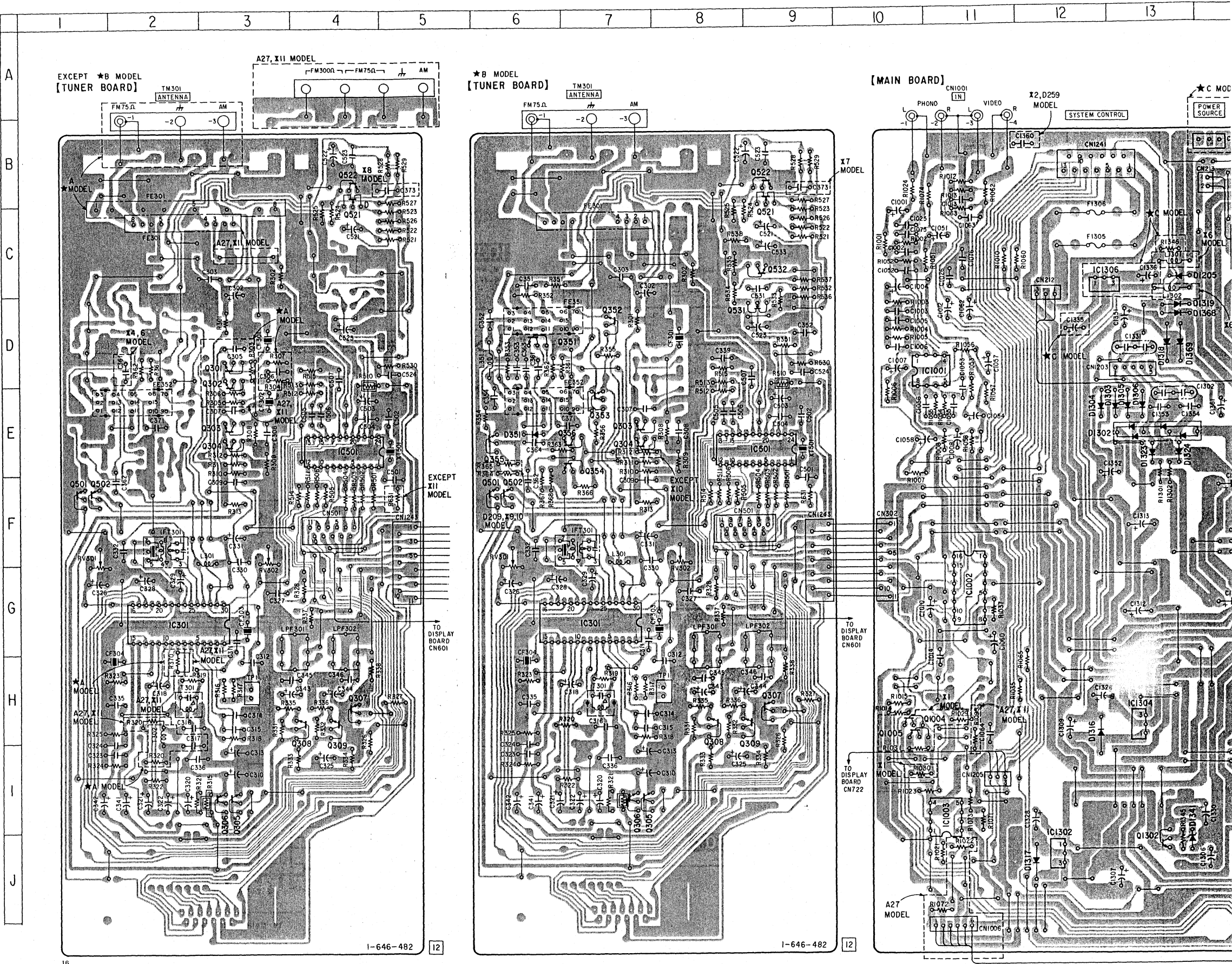
★B : \* 3, 5, 7, 9, 10

★C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

AU2 : AUS (with in PHONO MODEL)

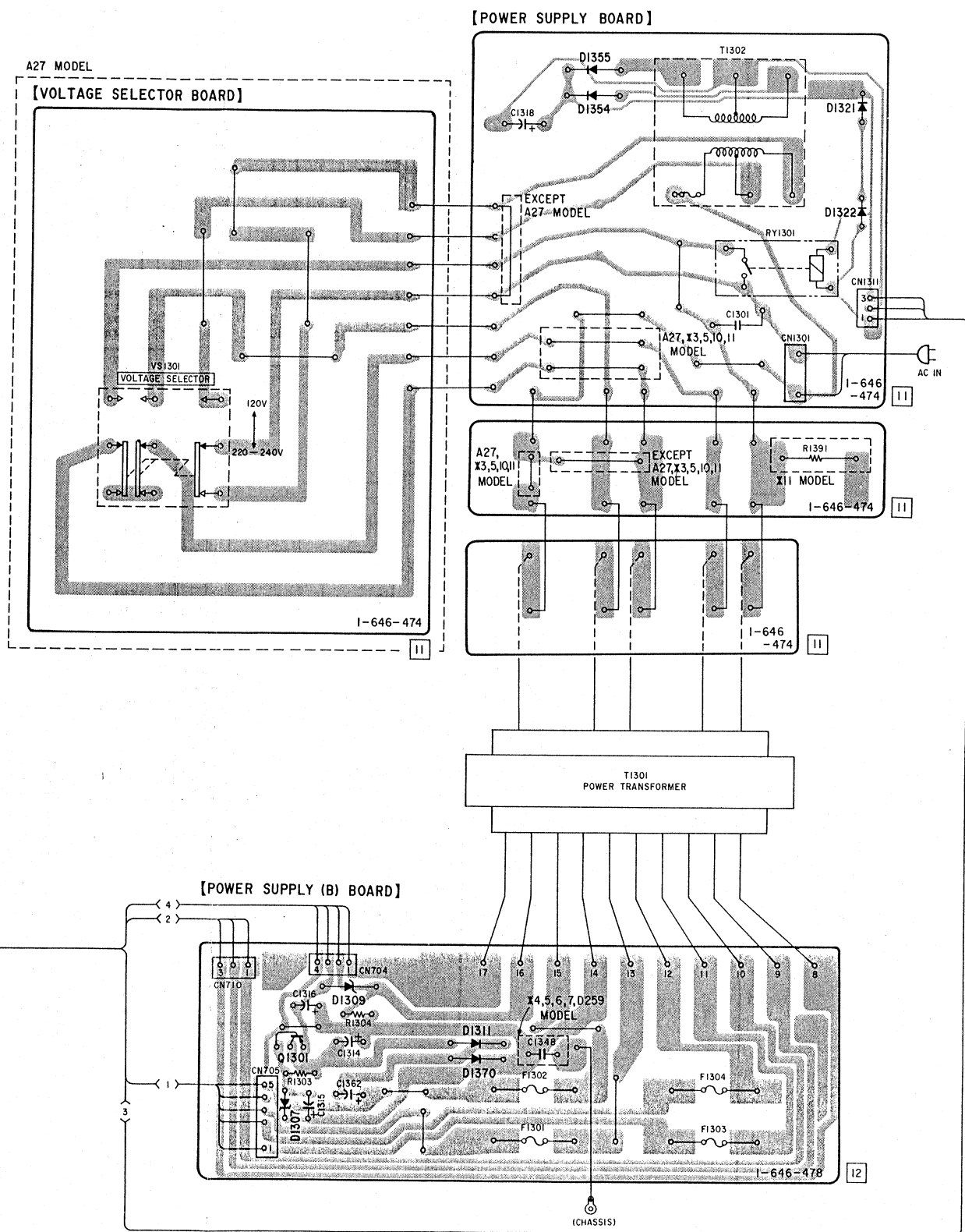
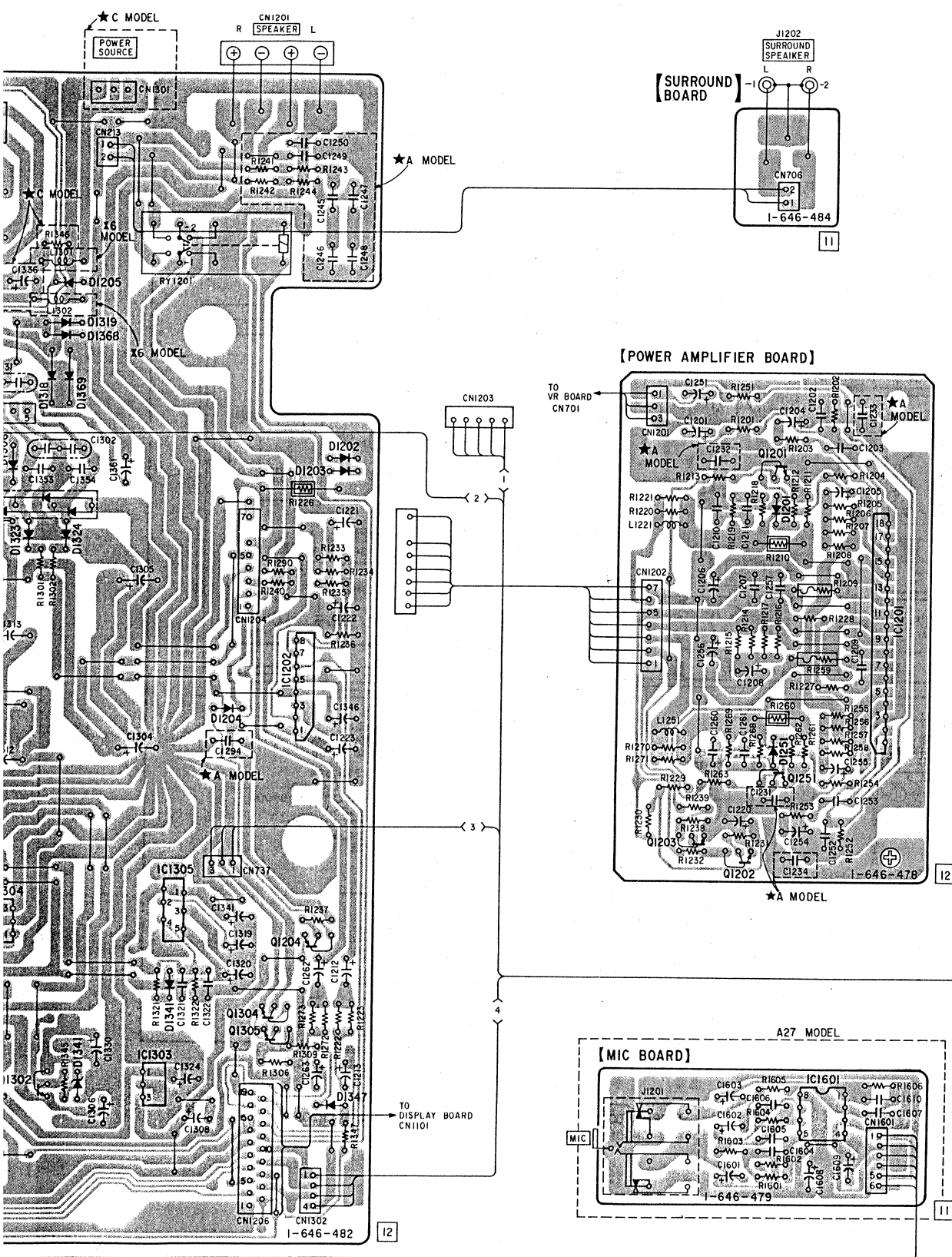
AE2 : AEP (with in PHONO MODEL)

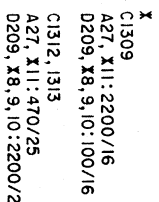
4-2. PRINTED WIRING BOARD — MAIN SECTION —





13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----











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





**Note on Schematic Diagram :**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}$  W or less unless otherwise specified.
-  : nonflammable resistor.
-  : fusible resistor.

**Note:**  
The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

**Note:**  
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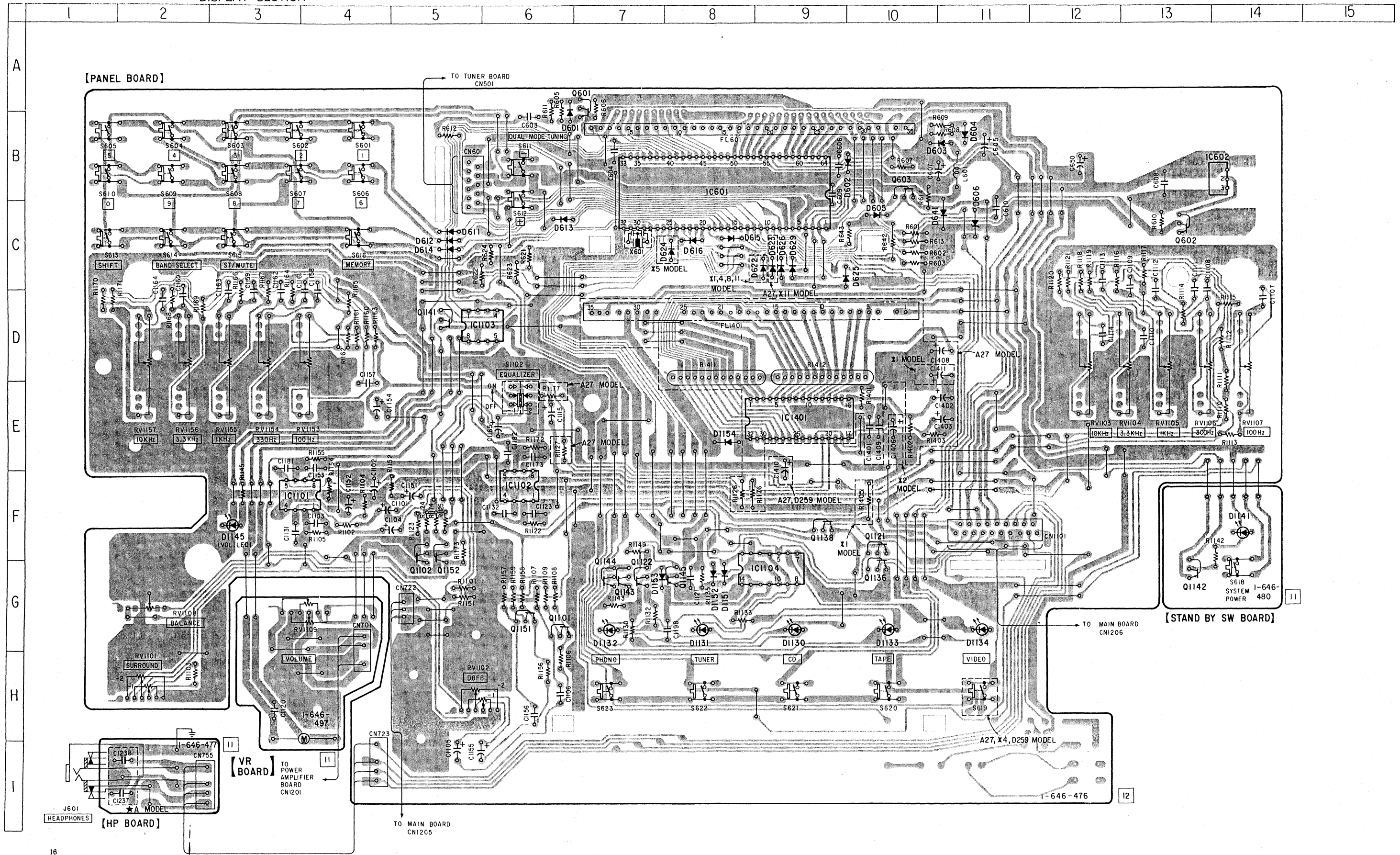
-  : adjustment for repair.
-  : B + Line.
-  : B - Line.
- no mark : FM
- Voltages are taken with a VOM (input impedance 10 M $\Omega$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.  
 : FM  
 : AM

- Model name and destination shown by \* 1 to \* 11.

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- \* 8 : D259 : Italian
- \* 9 : D259 : AEP, AE2
- \* 10 : D259 : UK
- \* 11 : D259 : Canadian
- ★ A : \* 4, 6, 8
- ★ B : \* 3, 5, 7, 9, 10
- ★ C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

AU2 : AUS (with in PHONO MODEL)  
AE2 : AEP (with in PHONO MODEL)

4-5. PRINTED WIRING BOARD — DISPLAY SECTION —

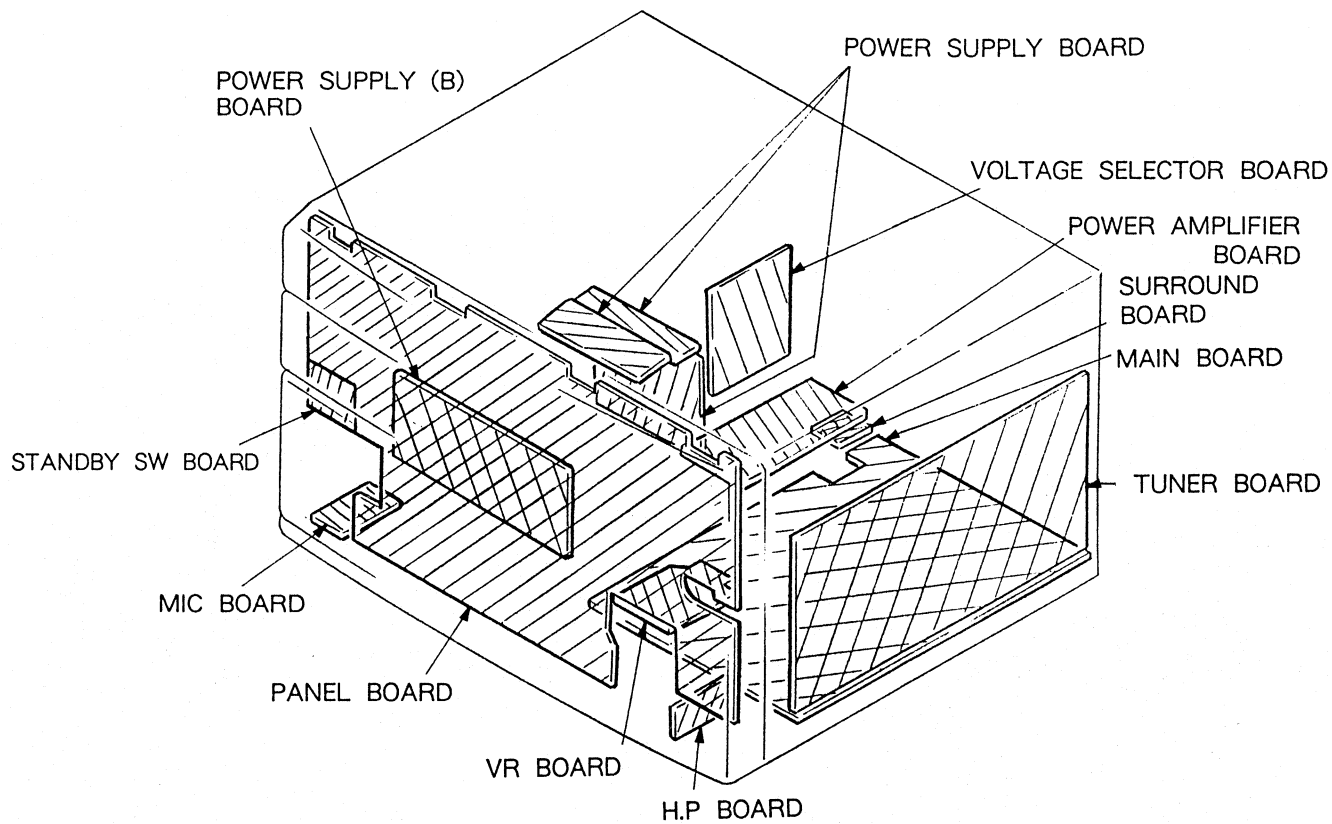




● Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	B-6	D1153	G-7
D602	B-9	D1154	E-8
D603	B-10		
D604	B-11	IC601	B-8
D605	C-10	IC602	B-13
D606	B-11	IC1101	F-3
D611	C-5	IC1102	F-6
D612	C-5	IC1103	D-5
D613	C-6	IC1104	G-8
D614	C-5	IC1401	E-9
D615	C-8		
D616	C-8	Q601	A-6
D622	C-8	Q602	C-13
D623	C-9	Q603	B-10
D624	C-8	Q1101	G-6
D625	C-9	Q1102	G-5
D626	C-9	Q1121	F-10
D629	C-9	Q1122	F-7
D641	C-10	Q1136	G-10
D1130	G-9	Q1138	F-9
D1131	G-8	Q1141	D-5
D1132	G-7	Q1142	G-13
D1133	G-10	Q1143	G-7
D1134	G-11	Q1144	F-7
D1141	F-14	Q1145	G-8
D1145	F-3	Q1151	G-6
D1151	G-8	Q1152	G-5
D1152	G-8		

4-6. CIRCUIT BOARDS LOCATION



4-7. SEMICONDUCTOR LEAD LAYOUTS

Note on Mounting Diagram :

- : Parts extracted from the component side.
- ▨ : Pattern on the side which is seen.

● Model name and destination shown by \* 1 to \* 11.

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\* 9 : D259 : AEP, AE2

\* 10 : D259 : UK

\* 11 : D259 : Canadian

★ A : \* 4, 6, 8

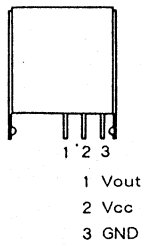
★ B : \* 3, 5, 7, 9, 10

★ C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

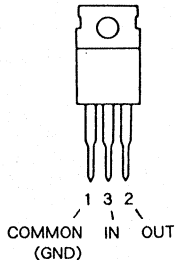
AU2 : AUS (with in PHONO MODEL)

AE2 : AEP (with in PHONO MODEL)

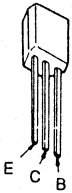
GP1U50XB



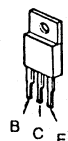
M5F79M07



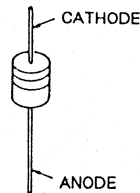
DTA114ES  
DTC114ES  
DTC124ES  
2SC2603-EF  
2SC2669-0Y  
2SC3622A-LK



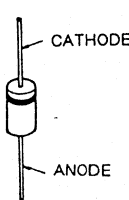
2SA473  
2SD2012



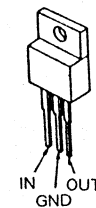
HZS7B3L  
UZL-12M3  
UZL-33L  
UZL-5.8B  
UZ-3.9BSB  
11ES2



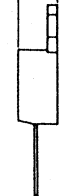
1N4148M



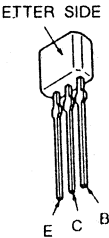
M5F7805  
M5F7807L  
M5F7812L



L78MR06  
4.8 MAX



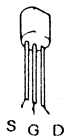
DTA124ES  
2SA1175-HFE  
2SC2785-HFE



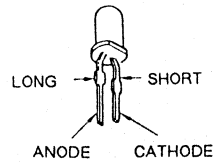
2SC1841-PAFAEA  
2SC3112-B



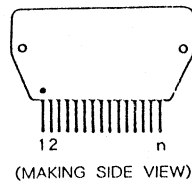
2SK246-GR3

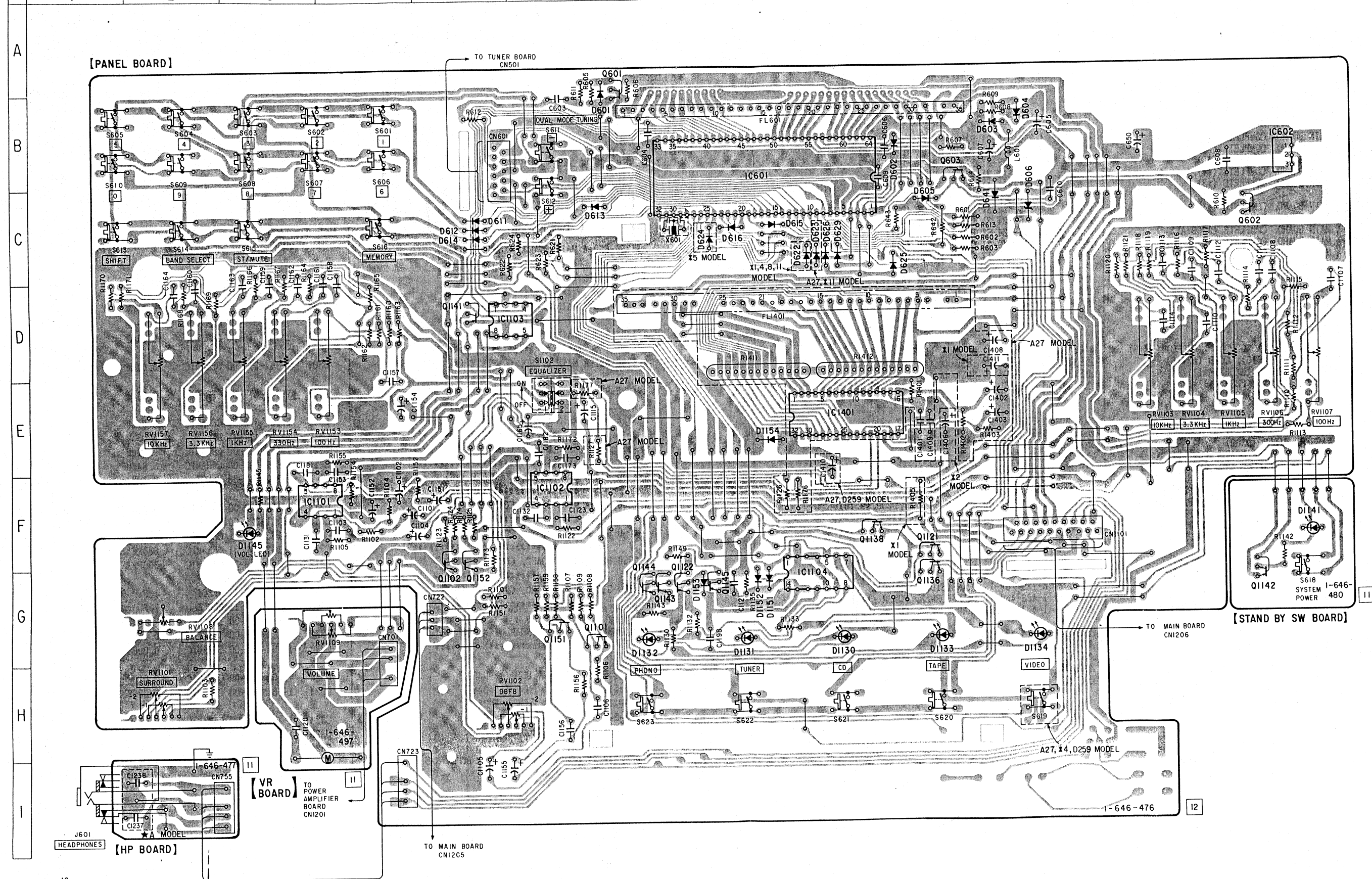


SEL2210S-CD  
SEL3210S-CD



STK-4142MK2







• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D601	B-6	D1153	G-7
D602	B-9	D1154	E-8
D603	B-10		
D604	B-11	IC601	B-8
D605	C-10	IC602	B-13
D606	B-11	IC1101	F-3
D611	C-5	IC1102	F-6
D612	C-5	IC1103	D-5
D613	C-6	IC1104	G-8
D614	C-5	IC1401	E-9
D615	C-8		
D616	C-8	Q601	A-6
D622	C-8	Q602	C-13
D623	C-9	Q603	B-10
D624	C-8	Q1101	G-6
D625	C-9	Q1102	G-5
D626	C-9	Q1121	F-10
D629	C-9	Q1122	F-7
D641	C-10	Q1136	G-10
D1130	G-9	Q1138	F-9
D1131	G-8	Q1141	D-5
D1132	G-7	Q1142	G-13
D1133	G-10	Q1143	G-7
D1134	G-11	Q1144	F-7
D1141	F-14	Q1145	G-8
D1145	F-3	Q1151	G-6
D1151	G-8	Q1152	G-5
D1152	G-8		

Note on Mounting Diagram :

-  : Parts extracted from the component side.
-  : Pattern on the side which is seen.

• Model name and destination shown by \* 1 to \* 11.

\* 1 : A27 : Australian

\* 2 : A27 : E, AU2

\* 3 : D209 : UK

\* 4 : D209 : Italian

\* 5 : D209 : East European

\* 6 : D209 : German

\* 7 : D209 : AEP, AE2

\* 8 : D259 : Italian

\* 9 : D259 : AEP, AE2

\* 10 : D259 : UK

\* 11 : D259 : Canadian

★ A : \* 4, 6, 8

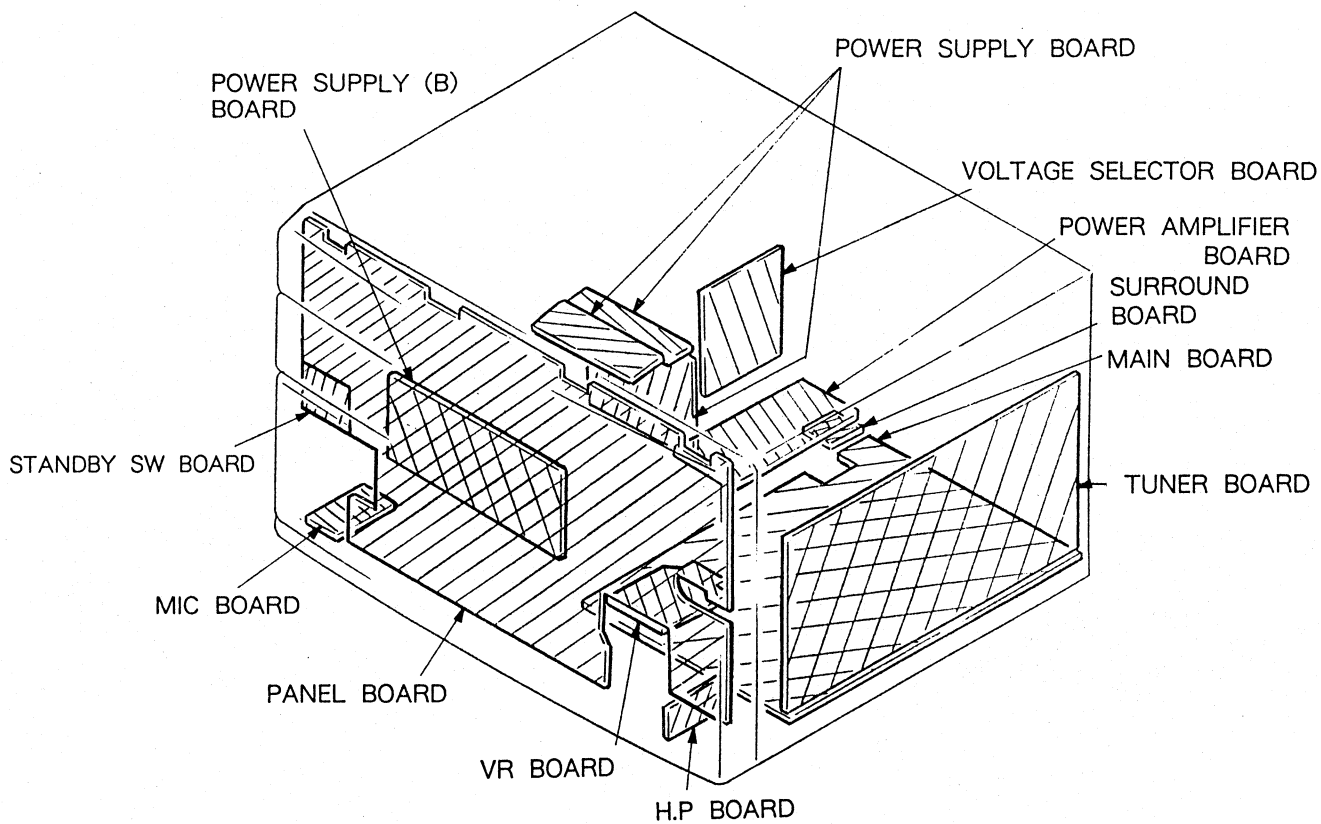
★ B : \* 3, 5, 7, 9, 10

★ C : 209 : AEP, \* 3, 6, D259 : AEP, \* 10

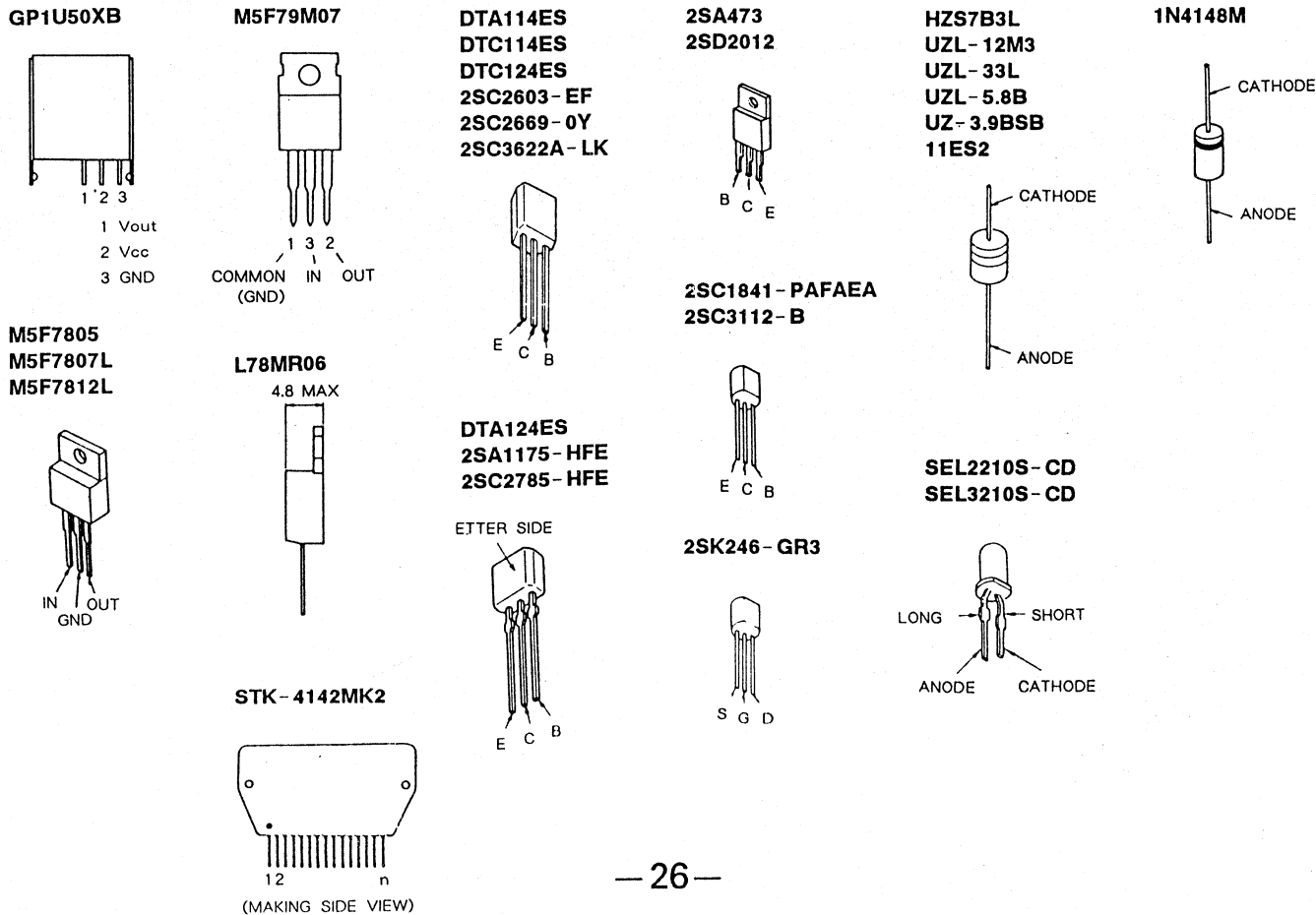
AU2 : AUS (with in PHONO MODEL)

AE2 : AEP (with in PHONO MODEL)

4-6. CIRCUIT BOARDS LOCATION



4-7. SEMICONDUCTOR LEAD LAYOUTS



# SECTION 5 EXPLODED VIEWS

## NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts  
Example:  
KNOB, BALANCE (WHITE)...(RED)  
Parts color      Cabinet's color

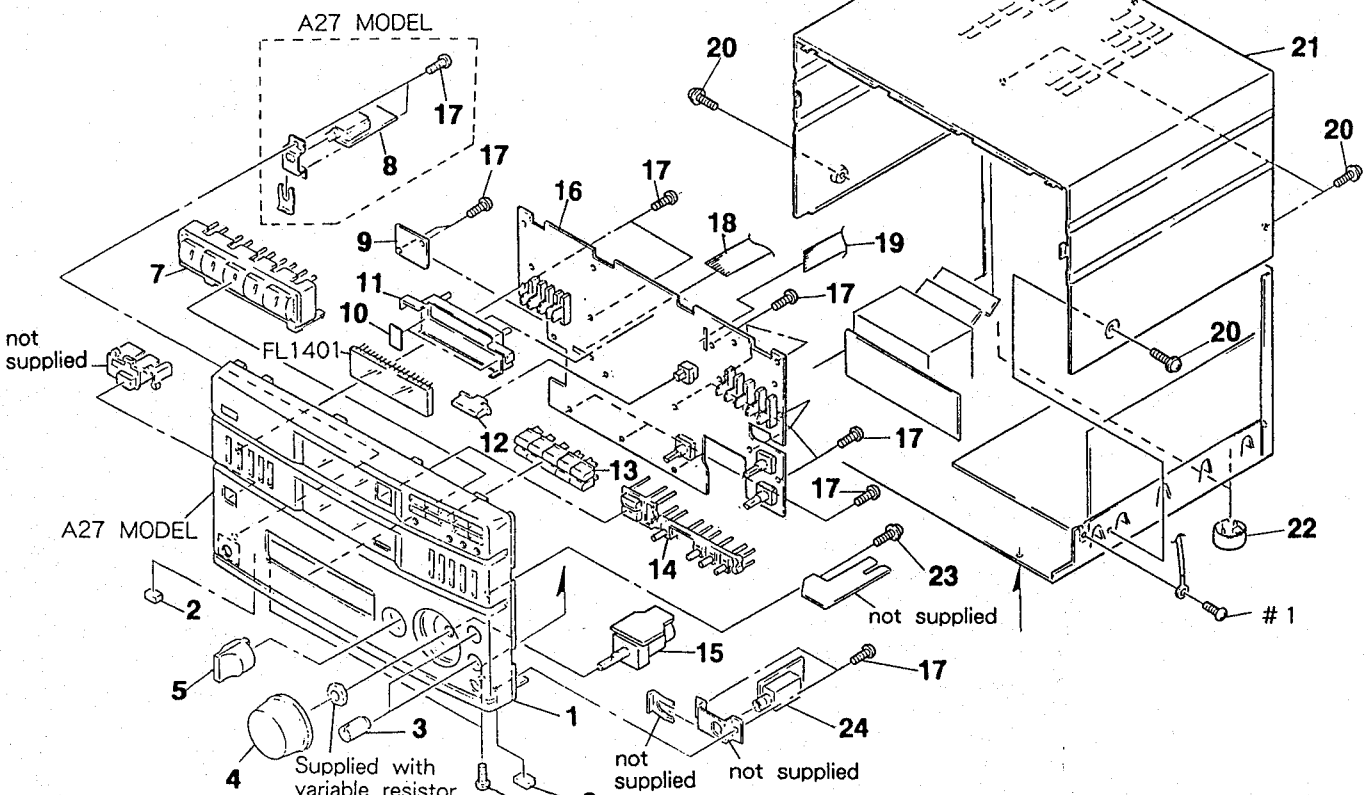
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

- Model name and destination shown by \*1 to \*11.
- \*1: A27: Australian
- \*2: A27: E, AU2
- \*3: D209: UK
- \*4: D209: Italian
- \*5: D209: East European
- \*6: D209: German
- \*7: D209: AEP, AE2
- \*8: D259: Italian
- \*9: D259: AEP, AE2
- \*10: D259: UK
- \*11: D259: Canadian
- ★A: \*4, 6, 8
- ★B: \*3, 5, 7, 9, 10
- ★C: 209: AEP, \*3, 6, D259: AEP, \*10
- AU2: AUS (with in PHONO MODEL)
- AE2: AEP (with in PHONO MODEL)

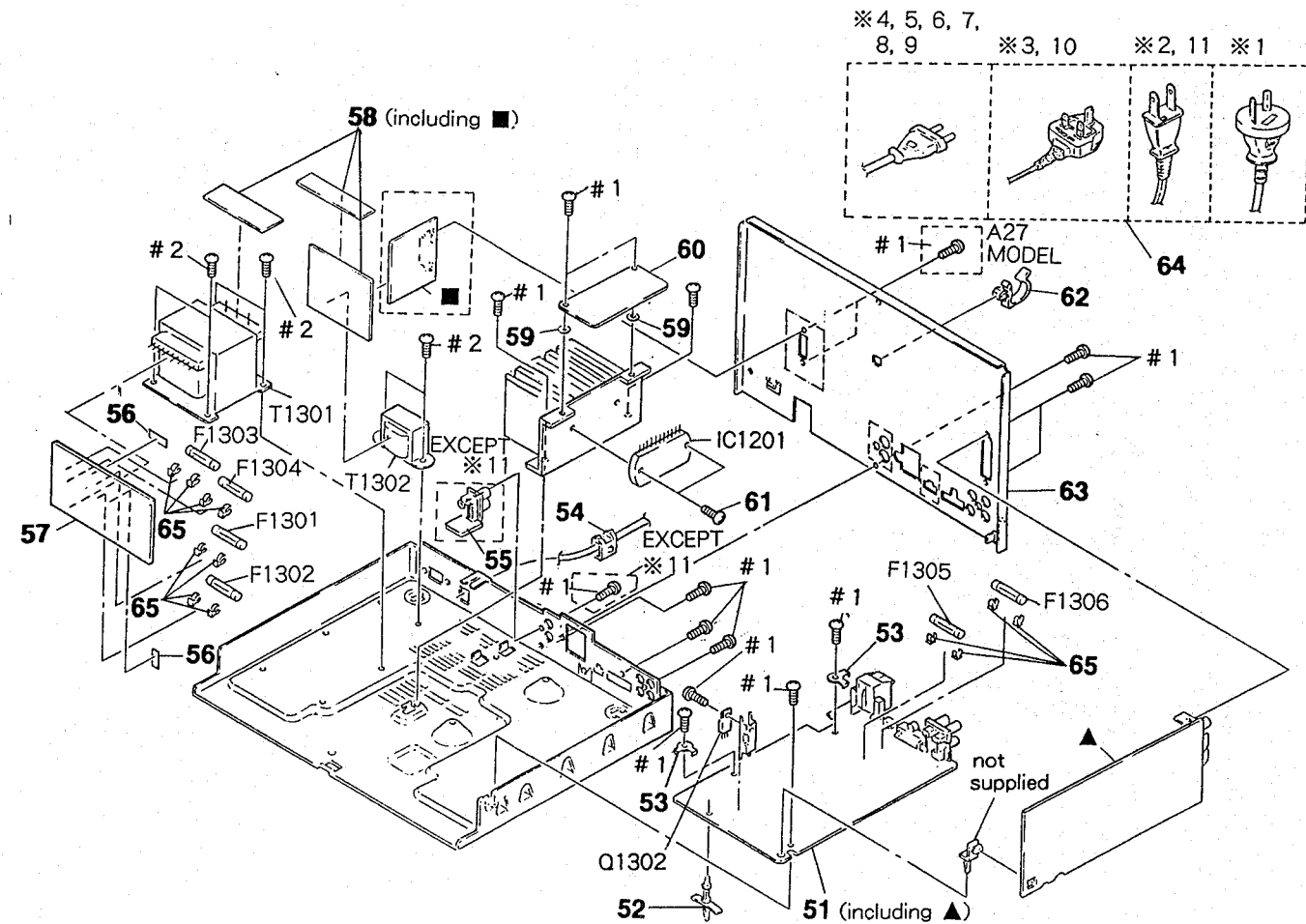
## 5-2. BACK PANEL SECTION

- ▲: TUNER BOARD
- : VOLTAGE SELECTOR BOARD

## 5-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	X-4943-180-1	PANEL ASSY, FRONT (*1)		*16	A-4356-736-A	PANEL BOARD, COMPLETE (*2)	
1	X-4943-182-1	PANEL ASSY, FRONT (D209)		*16	A-4356-623-A	PANEL BOARD, COMPLETE (*3)	
1	X-4943-242-2	PANEL ASSY, FRONT (*2)		*16	A-4356-930-A	PANEL BOARD, COMPLETE (*4)	
1	X-4943-243-2	PANEL ASSY, FRONT (D259)		*16	A-4360-822-A	PANEL BOARD, COMPLETE (*5)	
2	4-948-236-01	CUSHION (107)		*16	A-4356-924-A	PANEL BOARD, COMPLETE (*6)	
3	4-955-744-01	KNOB (BA) (*1, D209)		*16	A-4356-608-A	PANEL BOARD, COMPLETE (*7)	
3	4-955-744-21	KNOB (BA) (*2, D259)		*16	A-4360-541-A	PANEL BOARD, COMPLETE (*8)	
4	4-955-635-01	KNOB (V) (*1, D209)		*16	A-4360-531-A	PANEL BOARD, COMPLETE (*9)	
4	4-955-635-21	KNOB (V) (*2, D259)		*16	A-4360-520-A	PANEL BOARD, COMPLETE (*10)	
5	4-955-636-01	KNOB (DB) (*1, D209)		*16	A-4360-509-A	PANEL BOARD, COMPLETE (*11)	
5	4-955-636-22	KNOB (DB) (*2, D259)		17	4-951-620-01	SCREW (2.6X8), +BVTP	
7	X-4943-179-1	BUTTON (FU) ASSY		18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
*8	1-646-479-11	MIC BOARD (A27)		19	1-590-576-11	WIRE, FLAT TYPE (11 CORE) (A27, D259)	
*9	1-646-480-11	STAND-BY SW BOARD		19	1-590-576-21	WIRE, FLAT TYPE (11 CORE) (D209)	
*10	4-949-935-31	CUSHION (FL)		20	3-704-366-01	SCREW (CASE) (M3X8)	
*11	4-942-301-01	HOLDER, FL TUBE		*21	4-955-759-11	CASE (*1, D209)	
12	4-955-755-01	BUTTON (EQ) (*1, D209)		*21	4-955-759-51	CASE (*2, D259)	
12	4-955-755-11	BUTTON (EQ) (*2, D259)		22	4-933-601-01	FOOT (*2, D259)	
13	4-955-741-01	BUTTON (PR) (*1, D209)		22	X-4941-228-1	FOOT ASSY (*1, D209)	
13	4-955-741-21	BUTTON (PR) (*2, D259)		23	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10) (*1, D209)	
14	4-955-745-01	BUTTON (ST)		23	4-957-577-11	SCREW PTP WH (2.6X8) (DIA. 10) (*2, D259)	
*15	1-646-497-11	VR BOARD		*24	1-646-477-11	H.P. BOARD	
*16	A-4356-640-A	PANEL BOARD, COMPLETE (*1)		FL1401	1-519-648-21	INDUCTOR TUBE, FLUORESCENT (A27)	



## CAUTION

Be sure to use insulation sheet (A4-959-364-01) when replacing power transformer because it is safely related part.



MAIN	SURROUND
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## SECTION 6

### ELECTRICAL PARTS LIST



- Model name and destination shown by \*1 to \*11.
- \*1 : A27 : Australian
- \*2 : A27 : E, AU2
- \*3 : D209 : UK
- \*4 : D209 : Italian
- \*5 : D209 : East European
- \*6 : D209 : German
- \*7 : D209 : AEP, AE2
- \*8 : D259 : Italian
- \*9 : D259 : AEP, AE2
- \*10 : D259 : UK
- \*11 : D259 : Canadian
- ★A : \*4, 6, 8
- ★B : \*3, 5, 7, 9, 10
- ★C : 209 : AEP, \*3, 6, D259 : AEP, \*10


AU2 : AUS (with in PHONO MODEL)  
 AE2 : AEP (with in PHONO MODEL)



- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL : metal-film resistor  
METAL OXIDE : Metal Oxide-film resistor  
F : nonflammable


- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case,  $u: \mu$ , for example:  
 $uA...: \mu A..., uPA..., \mu PA...,$   
 $uPB..., \mu PB..., uPC..., \mu PC...,$   
 $uPD..., \mu PD...$
- CAPACITORS:  
 $uF: \mu F$
- COILS  
 $uH: \mu H$

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
* 51	A-4356-650-A	MAIN BOARD, COMPLETE (*1)		* 63	4-955-778-91	PANEL, BACK (*6)	
* 51	A-4356-742-A	MAIN BOARD, COMPLETE (*2)		* 63	4-955-778-11	PANEL, BACK (D209:AEP)	
* 51	A-4356-630-A	MAIN BOARD, COMPLETE (*3)		* 63	4-955-778-81	PANEL, BACK (D209:AE2)	
* 51	A-4356-933-A	MAIN BOARD, COMPLETE (*4)		* 63	4-955-824-31	PANEL, BACK (*8)	
* 51	A-4360-821-A	MAIN BOARD, COMPLETE (*5)		* 63	4-955-824-11	PANEL, BACK (D259:AEP)	
* 51	A-4356-926-A	MAIN BOARD, COMPLETE (*6)		* 63	4-955-824-81	PANEL, BACK (D259:AE2)	
* 51	A-4356-618-A	MAIN BOARD, COMPLETE (D209:AEP)		* 63	4-955-824-21	PANEL, BACK (*10)	
* 51	A-4356-928-A	MAIN BOARD, COMPLETE (D209:AE2)		* 63	4-955-824-51	PANEL, BACK (*11)	
* 51	A-4360-543-A	MAIN BOARD, COMPLETE (*8)		△64	1-696-848-21	CORD, POWER (*1)	
* 51	A-4360-534-A	MAIN BOARD, COMPLETE (D259:AEP)		△64	1-690-608-11	CORD, POWER (A27:AU2)	
* 51	A-4360-538-A	MAIN BOARD, COMPLETE (D259:AE2)		△64	1-575-653-11	CORD, POWER (A27:E)	
* 51	A-4360-523-A	MAIN BOARD, COMPLETE (*10)		△64	1-696-570-21	CORD, POWER (*3, 10)	
* 51	A-4360-511-A	MAIN BOARD, COMPLETE (*11)		△64	1-575-651-11	CORD, POWER (*4, 5, 6, 7, 8, 9)	
* 52	4-954-051-51	HOLDER, PC BOARD		△64	1-690-609-21	CORD, POWER (*11)	
* 53	4-942-204-01	PLATE, GROUND		65	1-533-217-31	HOLDER, FUSE (*1, D209)	
* 54	3-703-244-00	BUSHING (2104), CORD (EXCEOT A27:E)		* 65	1-533-213-11	HOLDER, FUSE (*2, D259)	
* 54	3-703-571-11	BUSHING (S) (4516), CORD (A27:E)		△F1301	1-532-350-00	FUSE 4A (A27, D209, *9, 10)	
* 55	1-646-484-11	SURROUND BOARD (EXCEPT *11)		△F1301	1-576-108-11	FUSE 4A (*8, 11)	
* 56	3-701-946-26	LABEL (4A125V), FUSE (*11)		△F1302	1-532-350-00	FUSE 4A (A27, D209, *9, 10)	
* 57	1-646-478-11	POWER SUPPLY (B) BOARD		△F1302	1-576-108-11	FUSE 4A (*8, 11)	
* 58	1-646-474-11	POWER SUPPLY BOARD		△F1303	1-532-203-00	FUSE 2A (D209, *9, 10)	
59	3-330-034-01	WASHER (*2, D259)		△F1303	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
59	3-564-542-00	WASHER, FIBER (D209)		△F1303	1-576-104-11	FUSE 2A (*8)	
* 60	A-4356-649-A	POWER AMPLIFIER BOARD, COMPLETE (*1)		△F1304	1-532-203-00	FUSE 2A (D209, *9, 10)	
* 60	A-4356-749-A	POWER AMPLIFIER BOARD, COMPLETE (*2)		△F1304	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
* 60	A-4356-628-A	POWER AMPLIFIER BOARD, COMPLETE (*3)		△F1304	1-576-104-11	FUSE 2A (*8)	
* 60	A-4356-935-A	POWER AMPLIFIER BOARD, COMPLETE (*4, 6)		△F1305	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
* 60	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (*5, 7)		△F1305	1-576-105-11	FUSE 2.5A (*8, 11)	
* 60	A-4360-546-A	POWER AMPLIFIER BOARD, COMPLETE (*8)		△F1306	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
* 60	A-4360-537-A	POWER AMPLIFIER BOARD, COMPLETE (*9)		△F1306	1-576-105-11	FUSE 2.5A (*8, 11)	
* 60	A-4360-527-A	POWER AMPLIFIER BOARD, COMPLETE (*10)		IC1201	8-749-900-24	IC STK-4162MK2 (A27, *11)	
* 60	A-4360-516-A	POWER AMPLIFIER BOARD, COMPLETE (*11)		IC1201	8-749-900-96	IC STK-4162MK2 (D209, *8, 9, 10)	
61	4-928-635-11	SCREW, +BV (2.6X16) TAPPING		Q1302	8-729-209-15	TRANSISTOR 2SD2012	
* 62	4-949-235-01	HOOK (*2, 4, 5, 6, 7, 9, 11)		△T1301	1-423-438-11	TRANSFORMER, POWER (*1)	
* 63	4-955-781-11	PANEL, BACK (*1)		△T1301	1-423-438-21	TRANSFORMER, POWER (*2)	
* 63	4-955-824-91	PANEL, BACK (A27:E)		△T1301	1-423-437-11	TRANSFORMER, POWER (D209)	
* 63	4-955-824-61	PANEL, BACK (A27:AU2)		△T1301	1-423-437-21	TRANSFORMER, POWER (*8, 9, 10)	
* 63	4-955-778-21	PANEL, BACK (*3)		△T1301	1-423-431-11	TRANSFORMER, POWER (*11)	
* 63	4-955-778-31	PANEL, BACK (*4)		△T1302	1-449-723-31	TRANSFORMER, POWER (EXCEPT *11)	
* 63	4-955-778-41	PANEL, BACK (*5)		△T1302	1-450-786-11	TRANSFORMER, POWER (*11)	

**Note:**  
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

**Note:**  
The components identified by mark  or dotted line with mark  are critical for safety. Replace only with part number specified.

**Note:**  
Les composants identifiés par une marque  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

Ref. No.	Part No.	Description	Remarks
*	A-4356-650-A	MAIN BOARD, COMPLETE (#1) *****	
*	A-4356-742-A	MAIN BOARD, COMPLETE (#2) *****	
*	A-4356-630-A	MAIN BOARD, COMPLETE (#3) *****	
*	A-4356-933-A	MAIN BOARD, COMPLETE (#4) *****	
*	A-4360-821-A	MAIN BOARD, COMPLETE (#5) *****	
*	A-4356-926-A	MAIN BOARD, COMPLETE (#6) *****	
*	A-4356-618-A	MAIN BOARD, COMPLETE (D209:AEP) *****	
*	A-4356-928-A	MAIN BOARD, COMPLETE (D209:AE2) *****	
*	A-4360-543-A	MAIN BOARD, COMPLETE (#8) *****	
*	A-4360-534-A	MAIN BOARD, COMPLETE (D259:AEP) *****	
*	A-4360-538-A	MAIN BOARD, COMPLETE (D259:AE2) *****	
*	A-4360-523-A	MAIN BOARD, COMPLETE (#10) *****	
*	A-4360-511-A	MAIN BOARD, COMPLETE (#11) *****	
*	1-646-484-11	SURROUND BOARD (EXCEPT #11) *****	
*	1-533-213-11	HOLDER, FUSE (#2, D259)	
*	1-533-213-31	HOLDER, FUSE (#2, D259)	
*	1-533-217-31	HOLDER, FUSE (#1, D209)	
*	1-533-293-11	FUSE HOLDER (#2, D259)	
*	4-942-204-01	PLATE, GROUND	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S (#6)	

Ref. No.	Part No.	Description	Remarks
		< CAPACITOR >	
C301	1-161-379-00	CERAMIC 0.01uF	20% 25V (★:A)
C302	1-124-477-11	ELECT 47uF	20% 25V
C303	1-161-379-00	CERAMIC 0.01uF	20% 25V
C305	1-161-379-00	CERAMIC 0.01uF	20% 25V (★:A)
C306	1-161-379-00	CERAMIC 0.01uF	20% 25V (★:A)
C307	1-161-379-00	CERAMIC 0.01uF	20% 25V (EXCEPT #1)
C308	1-161-379-00	CERAMIC 0.01uF	20% 25V (EXCEPT #1)
C309	1-161-379-00	CERAMIC 0.01uF	20% 25V
C310	1-124-477-11	ELECT 47uF	20% 25V
C311	1-161-379-00	CERAMIC 0.01uF	20% 25V
C312	1-101-006-00	CERAMIC 0.047uF	50V
C313	1-123-382-00	ELECT 3.3uF	20% 100V
C314	1-161-379-00	CERAMIC 0.01uF	20% 25V
C315	1-161-329-00	CERAMIC 0.0068uF	30% 16V
C316	1-162-282-31	CERAMIC 100PF	10% 50V
C317	1-162-292-31	CERAMIC 680PF	10% 50V (#4, 6)
C317	1-162-289-31	CERAMIC 390PF	10% 50V (#8)
C318	1-124-903-11	ELECT 1uF	20% 50V
C320	1-124-903-11	ELECT 1uF	20% 50V
C321	1-124-902-00	ELECT 0.47uF	20% 50V
C322	1-124-463-00	ELECT 0.1uF	20% 50V
C323	1-161-329-00	CERAMIC 0.0068uF	20% 16V (EXCEPT #11)
C323	1-161-379-00	CERAMIC 0.01uF	20% 25V (#11)
C324	1-161-329-00	CERAMIC 0.0068uF	20% 16V (EXCEPT #11)
C324	1-161-379-00	CERAMIC 0.01uF	20% 25V (#11)
C325	1-124-477-11	ELECT 47uF	20% 25V
C326	1-124-907-11	ELECT 10uF	20% 50V
C327	1-161-379-00	CERAMIC 0.01uF	20% 25V
C328	1-124-463-00	ELECT 0.1uF	20% 50V

— 30 —

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks
C329	1-124-927-11	ELECT 4.7uF	20% 100V
C330	1-161-379-00	CERAMIC 0.01uF	20% 25V
C331	1-126-176-11	ELECT 220uF	20% 10V
C332	1-161-379-00	CERAMIC 0.01uF	20% 25V
C335	1-161-379-00	CERAMIC 0.01uF	20% 25V
C336	1-161-379-00	CERAMIC 0.01uF	20% 25V
C339	1-162-210-31	CERAMIC 30PF	5% 50V (★:B)
C341	1-123-382-00	ELECT 3.3uF	20% 100V
C342	1-123-382-00	ELECT 3.3uF	20% 100V
C343	1-123-382-00	ELECT 3.3uF	20% 100V
C344	1-123-382-00	ELECT 3.3uF	20% 100V
C345	1-161-375-00	CERAMIC 0.0022uF	20% 50V
C346	1-161-375-00	CERAMIC 0.0022uF	20% 50V
C351	1-161-494-00	CERAMIC 0.022uF	25V (★:B)
C352	1-102-120-00	CERAMIC 0.0018uF	10% 50V (★:B)
C353	1-161-374-11	CERAMIC 0.0015uF	20% 50V (★:B)
C354	1-161-494-00	CERAMIC 0.022uF	25V (★:B)
C361	1-164-098-11	CERAMIC 0.047uF	12V
C361	1-161-379-00	CERAMIC 0.01uF	20% 25V (*4, 6)
C362	1-161-494-00	CERAMIC 0.022uF	25V
C363	1-164-159-11	CERAMIC 0.1uF	50V (★:B)
C364	1-161-494-00	CERAMIC 0.022uF	25V (★:B)
C371	1-162-198-31	CERAMIC 8.2PF	10% 50V (EXCEPT ★:B)
C371	1-162-196-31	CERAMIC 5.6PF	10% 50V (★:B)
C373	1-162-288-31	CERAMIC 330PF	10% 50V (*7, *8)
C501	1-102-961-00	CERAMIC 27PF	5% 50V
C502	1-102-961-00	CERAMIC 27PF	5% 50V
C503	1-124-477-11	ELECT 47uF	20% 25V
C504	1-161-379-00	CERAMIC 0.01uF	20% 25V
C505	1-161-379-00	CERAMIC 0.01uF	20% 25V
C506	1-161-379-00	CERAMIC 0.01uF	20% 25V
C507	1-161-379-00	CERAMIC 0.01uF	20% 25V
C521	1-124-925-11	ELECT 2.2uF	20% 100V
C522	1-124-463-00	ELECT 0.1uF	20% 50V
C523	1-161-379-00	CERAMIC 0.01uF	20% 25V
C524	1-161-379-00	CERAMIC 0.01uF	20% 25V
C525	1-124-477-11	ELECT 47uF	20% 25V (EXCEPT *5)
C525	1-126-101-11	ELECT 100uF	20% 16V (*5)
C531	1-136-173-00	FILM 0.47uF	5% 50V (★:B)
C532	1-161-494-00	CERAMIC 0.022uF	25V (★:B)
C533	1-124-463-00	ELECT 0.1uF	20% 50V (★:B)
C1001	1-124-925-11	ELECT 2.2uF	20% 100V
C1002	1-162-282-31	CERAMIC 100PF	10% 50V
C1003	1-162-282-31	CERAMIC 100PF	10% 50V
C1004	1-124-477-11	ELECT 47uF	20% 25V
C1005	1-161-377-00	CERAMIC 0.0047uF	20% 16V
C1006	1-161-374-11	CERAMIC 0.0015uF	20% 50V
C1007	1-124-464-11	ELECT 0.22uF	20% 50V
C1008	1-124-477-11	ELECT 47uF	20% 25V
C1010	1-124-477-11	ELECT 47uF	20% 25V
C1012	1-124-925-11	ELECT 2.2uF	20% 100V

Ref. No.	Part No.	Description	Remarks
C1013	1-162-290-31	CERAMIC 470PF	10% 50V
C1014	1-161-494-00	CERAMIC 0.022uF	25V
C1025	1-162-286-31	CERAMIC 220PF	10% 50V
C1026	1-162-286-31	CERAMIC 220PF	10% 50V
C1051	1-124-925-11	ELECT 2.2uF	20% 100V
C1052	1-162-282-31	CERAMIC 100PF	10% 50V
C1053	1-162-282-31	CERAMIC 100PF	10% 50V
C1054	1-124-477-11	ELECT 47uF	20% 25V
C1055	1-161-377-00	CERAMIC 0.0047uF	20% 16V
C1056	1-161-374-11	CERAMIC 0.0015uF	20% 50V
C1057	1-124-464-11	ELECT 0.22uF	20% 50V
C1058	1-124-477-11	ELECT 47uF	20% 25V
C1060	1-124-477-11	ELECT 47uF	20% 25V
C1062	1-124-925-11	ELECT 2.2uF	20% 100V
C1063	1-162-290-31	CERAMIC 470PF	10% 50V
C1064	1-161-494-00	CERAMIC 0.022uF	25V
C1075	1-162-286-31	CERAMIC 220PF	10% 50V
C1076	1-162-286-31	CERAMIC 220PF	10% 50V
C1212	1-124-916-11	ELECT 22uF	20% 63V
C1213	1-124-916-11	ELECT 22uF	20% 63V
C1221	1-126-101-11	ELECT 100uF	20% 16V
C1222	1-126-176-11	ELECT 220uF	20% 10V
C1223	1-126-176-11	ELECT 220uF	20% 10V
C1245	1-101-006-00	CERAMIC 0.047uF	50V (★:A)
C1246	1-101-006-00	CERAMIC 0.047uF	50V (★:A)
C1247	1-101-006-00	CERAMIC 0.047uF	50V (★:A)
C1248	1-101-006-00	CERAMIC 0.047uF	50V (★:A)
C1249	1-161-494-00	CERAMIC 0.022uF	25V (★:A)
C1250	1-161-494-00	CERAMIC 0.022uF	25V (★:A)
C1262	1-124-916-11	ELECT 22uF	20% 63V
C1263	1-124-916-11	ELECT 22uF	20% 63V
C1294	1-161-494-00	CERAMIC 0.022uF	25V (★:A)
C1302	1-102-394-11	CERAMIC 0.01uF	250V
C1304	1-126-224-11	ELECT 4700uF	20% 42V
C1305	1-126-224-11	ELECT 4700uF	20% 42V
C1306	1-124-477-11	ELECT 47uF	20% 25V
C1307	1-124-893-11	ELECT 2200uF	20% 10V
C1308	1-126-101-11	ELECT 100uF	20% 16V
C1309	1-124-556-11	ELECT 2200uF	20% 16V (A27, *11)
C1309	1-126-101-11	ELECT 100uF	20% 16V (D209, *8, 9, 10)
C1312	1-124-564-11	ELECT 4700uF	20% 25V (A27, *11)
C1312	1-124-563-11	ELECT 2200uF	20% 25V (D209, *8, 9, 10)
C1313	1-124-564-11	ELECT 4700uF	20% 25V (A27, *11)
C1313	1-124-563-11	ELECT 2200uF	20% 25V (D209, *8, 9, 10)
C1319	1-124-463-00	ELECT 0.1uF	20% 50V
C1320	1-124-907-11	ELECT 10uF	20% 50V
C1321	1-161-379-00	CERAMIC 0.01uF	20% 25V

# MAIN SURROUND

Ref. No.	Part No.	Description	Remarks
C1322	1-161-379-00	CERAMIC 0.01uF	20% 25V
C1324	1-124-907-11	ELECT 10uF	20% 50V
C1326	1-124-907-11	ELECT 10uF	20% 50V
C1328	1-124-907-11	ELECT 10uF	20% 50V
C1330	1-126-101-11	ELECT 100uF	20% 16V
C1331	1-102-394-11	CERAMIC 0.01uF	250V
C1335	1-124-907-11	ELECT 10uF	20% 50V (★:C)
C1336	1-126-101-11	ELECT 100uF	20% 16V (★:C)
C1341	1-124-907-11	ELECT 10uF	20% 50V
C1346	1-124-925-11	ELECT 2.2uF	20% 100V
C1351	1-124-122-11	ELECT 100uF	20% 50V
C1352	1-126-105-11	ELECT 1000uF	20% 35V
C1353	1-136-165-00	FILM 0.1uF	5% 50V
C1354	1-136-165-00	FILM 0.1uF	5% 50V
C1360	1-161-494-00	CERAMIC 0.022uF	25V
			(#2, D259)
C1361	1-124-122-11	ELECT 100uF	20% 50V

## < FILTER >

CF301	1-577-070-81	FILTER, CERAMIC (EXCEPT ★:A)
CF301	1-567-389-11	FILTER, CERAMIC (★:A)
CF303	1-577-070-81	FILTER, CERAMIC (EXCEPT ★:A)
CF303	1-567-389-11	FILTER, CERAMIC (★:A)
CF304	1-577-075-11	OSCILLATOR, CERAMIC

## < CONNECTOR >

* CN212	1-564-506-11	PLUG, CONNECTOR 3P
CN302	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P
* CN1001	1-580-912-21	JACK, PIN 4P (IN) (#2, D259)
* CN1001	1-580-912-11	JACK, PIN 4P (IN) (#1, D209)
* CN1006	1-568-955-11	PIN, CONNECTOR 6P (A27)
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER) (EXCEPT #4, 8)
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER) (#4, 8)
* CN1203	1-564-508-11	PLUG, CONNECTOR 5P
CN1205	1-506-468-11	PIN, CONNECTOR 3P
CN1206	1-568-802-11	SOCKET, CONNECTOR 19P
* CN1241	1-565-291-11	SOCKET, CONNECTOR 13P (SYSTEM CONTROL)
CN1243	1-695-094-11	SOCKET, CONNECTOR 11P
CN1244	1-506-469-11	PIN, CONNECTOR 4P (A27, #9, 10, 11)
* CN1301	1-566-210-11	PIN, CONNECTOR 3P (POWER SOURCE) (★:C)
CN1302	1-506-469-11	PIN, CONNECTOR 4P

## < DIODE >

D351	8-719-987-63	DIODE 1N4148M (★:B)
D1202	8-719-987-63	DIODE 1N4148M
D1203	8-719-987-63	DIODE 1N4148M
D1204	8-719-987-63	DIODE 1N4148M
D1205	8-719-933-48	DIODE HZS7B3L
D1302	8-719-312-09	DIODE RBA-402
D1303	8-719-200-82	DIODE 11ES2

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
D1304	8-719-200-82	DIODE	11ES2
D1305	8-719-200-82	DIODE	11ES2
D1306	8-719-200-82	DIODE	11ES2
D1316	8-719-200-82	DIODE	11ES2
D1317	8-719-200-82	DIODE	11ES2
D1318	8-719-200-82	DIODE	11ES2
D1319	8-719-200-82	DIODE	11ES2
D1321	8-719-987-63	DIODE	1N4148M
D1323	8-719-987-63	DIODE	1N4148M
D1324	8-719-987-63	DIODE	1N4148M
D1341	8-719-001-76	DIODE	UZL-12M3
D1347	8-719-987-63	DIODE	1N4148M
D1368	8-719-200-82	DIODE	11ES2
D1369	8-719-200-82	DIODE	11ES2

## < FRONTEND >

FE301	1-465-006-11	FRONT END (FM) (2 GANG) (#2, 3)
FE301	1-693-090-21	FRONT END (FM) (2 GANG) (#1, 7, 9, 10, 11)
FE301	1-463-857-21	FRONT END (★:A)
FE301	1-465-396-11	FRONT END (FM 3GANG) (#5)
FE351	1-236-463-11	ENCAPSULATED COMPONENT (★:B)
FE352	1-239-260-11	ENCAPSULATED COMPONENT (EXCEPT ★:B)
FE352	1-239-261-12	ENCAPSULATED COMPONENT (★:B)

## < IC >

IC301	8-759-821-45	IC LA1851N
IC501	8-759-820-91	IC LC7218
IC1001	8-759-634-51	IC M5218AP
IC1002	8-759-000-48	IC MC14052BCP
IC1003	8-759-634-51	IC M5218AP
IC1202	8-759-111-68	IC uPC1237HA
IC1302	8-759-231-53	IC M5F7805
IC1303	8-759-071-48	IC M5F7807L
IC1304	8-759-604-95	IC M5F79M07
IC1305	8-759-820-13	IC L78MR06
IC1306	8-759-231-58	IC M5F7812L (★:C)

## < JACK >

* J1202	1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER) (EXCEPT #11)
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## < IFT >

IFT301	1-404-713-11	TRANSFORMER, IF
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## < COIL >

L301	1-410-686-11	INDUCTOR 1mH (A27, #11)
L301	1-407-500-00	INDUCTOR 4.7mH (D209, #8, 9, 10)
L351	1-410-525-11	INDUCTOR 220uH (★:B)
L1301	1-408-117-00	INDUCTOR 10uH (#6)
L1302	1-408-117-00	INDUCTOR 10uH (#6)

Ref. No. Part No. Description Remarks

< FILTER >

LPF301 1-235-164-00 FILTER, LOW PASS  
LPF302 1-235-164-00 FILTER, LOW PASS

< TRANSISTOR >

Q301 8-729-230-99 TRANSISTOR 2SC2669-OY (★:A)  
Q302 8-729-230-99 TRANSISTOR 2SC2669-OY (★:A)  
Q303 8-729-230-99 TRANSISTOR 2SC2669-OY (EXCEPT \*1)  
Q304 8-729-230-99 TRANSISTOR 2SC2669-OY  
Q305 8-729-900-80 TRANSISTOR DTC114ES  
  
Q306 8-729-900-61 TRANSISTOR DTA114ES  
Q307 8-729-900-80 TRANSISTOR DTC114ES  
Q308 8-729-620-05 TRANSISTOR 2SC2603-EF (\*2, D259)  
Q308 8-729-119-78 TRANSISTOR 2SC2785-HFE (\*1, D209)  
Q309 8-729-620-05 TRANSISTOR 2SC2603-EF (\*2, D259)  
  
Q309 8-729-119-78 TRANSISTOR 2SC2785-HFE (\*1, D209)  
Q351 8-729-900-80 TRANSISTOR DTC114ES (★:B)  
Q352 8-729-119-78 TRANSISTOR 2SC2785-HFE (\*3, 5, 7)  
Q352 8-729-620-05 TRANSISTOR 2SC2603-EF (\*9, 10)  
Q353 8-729-119-76 TRANSISTOR 2SA1175-HFE (★:B)  
  
Q354 8-729-900-80 TRANSISTOR DTC114ES (★:B)  
Q355 8-729-900-80 TRANSISTOR DTC114ES (★:B)  
Q356 8-729-900-80 TRANSISTOR DTC114ES (★:B)  
Q501 8-729-900-80 TRANSISTOR DTC114ES  
Q502 8-729-900-61 TRANSISTOR DTA114ES  
  
Q521 8-729-202-67 TRANSISTOR 2SK246-GR3  
Q522 8-729-201-84 TRANSISTOR 2SC3112-B (A27, \*11)  
Q522 8-729-141-26 TRANSISTOR 2SC3622A-LK (D209, \*8, 9, 10)  
Q531 8-729-202-67 TRANSISTOR 2SK246-GR3 (★:B)  
Q532 8-729-141-26 TRANSISTOR 2SC3622A-LK (★:B)  
  
Q1004 8-729-900-36 TRANSISTOR DTC124ES (\*1)  
Q1005 8-729-119-76 TRANSISTOR 2SA1175-HFE (\*1)  
Q1204 8-729-900-63 TRANSISTOR DTA124ES  
Q1302 8-729-209-15 TRANSISTOR 2SD2012  
Q1304 8-729-620-05 TRANSISTOR 2SC2603-EF (\*2, D259)  
  
Q1304 8-729-119-78 TRANSISTOR 2SC2785-HFE (\*1, D209)  
Q1305 8-729-620-05 TRANSISTOR 2SC2603-EF (\*2, D259)  
Q1305 8-729-119-78 TRANSISTOR 2SC2785-HFE (\*1, D209)

< RESISTOR >

R301 1-249-401-11 CARBON 47 5% 1/4W F  
R302 1-249-409-11 CARBON 220 5% 1/4W F (\*1)  
R302 1-249-413-11 CARBON 470 5% 1/4W F (\*2, 3, 5)  
R302 1-249-407-11 CARBON 150 5% 1/4W F  
(\*7, 9, 10, 11)  
R302 1-249-405-11 CARBON 100 5% 1/4W F (★:A)  
R303 1-249-411-11 CARBON 330 5% 1/4W (★:A)  
R304 1-249-432-11 CARBON 18K 5% 1/4W (★:A)  
R305 1-249-411-11 CARBON 330 5% 1/4W (★:A)  
R306 1-249-434-11 CARBON 27K 5% 1/4W (★:A)

Ref. No. Part No. Description Remarks

R307 1-249-414-11 CARBON 560 5% 1/4W F (★:A)  
R308 1-249-411-11 CARBON 330 5% 1/4W  
R309 1-249-432-11 CARBON 18K 5% 1/4W (EXCEPT \*1)  
R310 1-249-411-11 CARBON 330 5% 1/4W  
R311 1-249-434-11 CARBON 27K 5% 1/4W (EXCEPT \*1)  
  
R311 1-247-891-00 CARBON 330K 5% 1/4W (\*1)  
R312 1-249-414-11 CARBON 560 5% 1/4W F  
(\*2, 3, 5, 7, 9, 11)  
R312 1-249-416-11 CARBON 820 5% 1/4W F (★:A)  
R313 1-249-405-11 CARBON 100 5% 1/4W F  
R314 1-249-437-11 CARBON 47K 5% 1/4W (★:A)  
R315 1-249-404-00 CARBON 82 5% 1/4W  
R315 1-249-435-11 CARBON 33K 5% 1/4W (★:A)  
  
R316 1-249-429-11 CARBON 10K 5% 1/4W  
R317 1-249-417-11 CARBON 1K 5% 1/4W F  
R318 1-249-435-11 CARBON 33K 5% 1/4W  
R319 1-249-428-11 CARBON 8.2K 5% 1/4W F  
R320 1-249-432-11 CARBON 18K 5% 1/4W  
  
R321 1-249-423-11 CARBON 3.3K 5% 1/4W F  
R322 1-249-429-11 CARBON 10K 5% 1/4W  
R323 1-249-418-11 CARBON 1.2K 5% 1/4W F  
(EXCEPT ★:A)  
R323 1-249-423-11 CARBON 3.3K 5% 1/4W F (\*4, 6)  
R323 1-249-417-11 CARBON 1K 5% 1/4W F (\*8)  
R324 1-249-429-11 CARBON 10K 5% 1/4W  
R325 1-249-429-11 CARBON 10K 5% 1/4W  
R326 1-249-409-11 CARBON 220 5% 1/4W F  
  
R327 1-249-437-11 CARBON 47K 5% 1/4W  
R328 1-249-437-11 CARBON 47K 5% 1/4W  
R331 1-247-899-11 CARBON 680K 5% 1/4W  
R332 1-247-899-11 CARBON 680K 5% 1/4W  
R333 1-249-421-11 CARBON 2.2K 5% 1/4W F  
  
R334 1-249-421-11 CARBON 2.2K 5% 1/4W F  
R335 1-249-420-11 CARBON 1.8K 5% 1/4W F  
R336 1-249-420-11 CARBON 1.8K 5% 1/4W F  
R337 1-249-426-11 CARBON 5.6K 5% 1/4W  
R338 1-249-426-11 CARBON 5.6K 5% 1/4W  
  
R351 1-249-433-11 CARBON 22K 5% 1/4W (★:B)  
R352 1-249-437-11 CARBON 47K 5% 1/4W (★:B)  
R353 1-247-903-00 CARBON 1M 5% 1/4W (★:B)  
R354 1-249-441-11 CARBON 100K 5% 1/4W (★:B)  
R355 1-249-433-11 CARBON 22K 5% 1/4W (★:B)  
  
R356 1-249-421-11 CARBON 2.2K 5% 1/4W F (★:B)  
R361 1-249-437-11 CARBON 47K 5% 1/4W  
R362 1-249-437-11 CARBON 47K 5% 1/4W  
R363 1-249-425-11 CARBON 4.7K 5% 1/4W F (★:B)  
R364 1-249-425-11 CARBON 4.7K 5% 1/4W F (★:B)  
  
R365 1-249-429-11 CARBON 10K 5% 1/4W  
(D209, \*8, 9, 10)  
R366 1-249-413-11 CARBON 470 5% 1/4W F (★:B)  
R367 1-249-434-11 CARBON 27K 5% 1/4W (★:B)  
R368 1-249-433-11 CARBON 22K 5% 1/4W (★:B)  
R370 1-249-423-11 CARBON 3.3K 5% 1/4W F (★:A)

# MAIN SURROUND

Ref. No.	Part No.	Description	Remarks
R501	1-249-417-11	CARBON 1K 5% 1/4W F	
R502	1-249-417-11	CARBON 1K 5% 1/4W F	
R503	1-249-417-11	CARBON 1K 5% 1/4W F	
R504	1-249-417-11	CARBON 1K 5% 1/4W F	
R505	1-249-429-11	CARBON 10K 5% 1/4W	
R506	1-249-417-11	CARBON 1K 5% 1/4W F	
R510	1-249-401-11	CARBON 47 5% 1/4W F	
R511	1-249-429-11	CARBON 10K 5% 1/4W	
R512	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R513	1-249-417-11	CARBON 1K 5% 1/4W F	
R514	1-249-429-11	CARBON 10K 5% 1/4W	
R515	1-249-417-11	CARBON 1K 5% 1/4W F	
R521	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R522	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R523	1-249-414-11	CARBON 560 5% 1/4W F	
R524	1-249-417-11	CARBON 1K 5% 1/4W F	
R525	1-249-410-11	CARBON 270 5% 1/4W F	
R526	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R527	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R528	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R529	1-249-405-11	CARBON 100 5% 1/4W F	
R530	1-249-405-11	CARBON 100 5% 1/4W F	
R531	1-249-423-11	CARBON 3.3K 5% 1/4W F (★:B)	
R532	1-249-433-11	CARBON 22K 5% 1/4W (★:B)	
R533	1-249-414-11	CARBON 560 5% 1/4W F (★:B)	
R534	1-249-417-11	CARBON 1K 5% 1/4W F (★:B)	
R535	1-249-410-11	CARBON 270 5% 1/4W F (★:B)	
R536	1-249-421-11	CARBON 2.2K 5% 1/4W F (★:B)	
R537	1-249-425-11	CARBON 4.7K 5% 1/4W F (★:B)	
R538	1-249-405-11	CARBON 100 5% 1/4W F (★:B)	
R613	1-249-441-11	CARBON 100K 5% 1/4W (*9, 10, 11)	
R631	1-249-441-11	CARBON 100K 5% 1/4W (A27, D209, *8)	
R1001	1-249-417-11	CARBON 1K 5% 1/4W F	
R1002	1-249-441-11	CARBON 100K 5% 1/4W	
R1003	1-249-416-11	CARBON 820 5% 1/4W F	
R1004	1-247-897-11	CARBON 560K 5% 1/4W	
R1005	1-249-437-11	CARBON 47K 5% 1/4W	
R1006	1-249-409-11	CARBON 220 5% 1/4W F	
R1007	1-249-441-11	CARBON 100K 5% 1/4W	
R1008	1-249-409-11	CARBON 220 5% 1/4W F	
R1010	1-249-417-11	CARBON 1K 5% 1/4W F	
R1012	1-249-417-11	CARBON 1K 5% 1/4W F	
R1013	1-249-441-11	CARBON 100K 5% 1/4W	
R1014	1-249-437-11	CARBON 47K 5% 1/4W	
R1015	1-249-437-11	CARBON 47K 5% 1/4W	
R1021	1-249-437-11	CARBON 47K 5% 1/4W	
R1022	1-249-432-11	CARBON 18K 5% 1/4W (A27)	

Ref. No.	Part No.	Description	Remarks
R1023	1-249-437-11	CARBON 47K 5% 1/4W	
R1024	1-249-417-11	CARBON 1K 5% 1/4W F	
R1029	1-249-433-11	CARBON 22K 5% 1/4W (*1)	
R1030	1-249-433-11	CARBON 22K 5% 1/4W (*1)	
R1031	1-249-433-11	CARBON 22K 5% 1/4W (*1)	
R1035	1-249-415-11	CARBON 680 5% 1/4W F	
R1037	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1051	1-249-417-11	CARBON 1K 5% 1/4W F	
R1052	1-249-441-11	CARBON 100K 5% 1/4W	
R1053	1-249-416-11	CARBON 820 5% 1/4W F	
R1054	1-247-897-11	CARBON 560K 5% 1/4W	
R1055	1-249-437-11	CARBON 47K 5% 1/4W	
R1056	1-249-409-11	CARBON 220 5% 1/4W F	
R1057	1-249-441-11	CARBON 100K 5% 1/4W	
R1058	1-249-409-11	CARBON 220 5% 1/4W F	
R1060	1-249-417-11	CARBON 1K 5% 1/4W F	
R1062	1-249-417-11	CARBON 1K 5% 1/4W F	
R1063	1-249-441-11	CARBON 100K 5% 1/4W	
R1065	1-249-415-11	CARBON 680 5% 1/4W F	
R1071	1-249-437-11	CARBON 47K 5% 1/4W	
R1072	1-249-432-11	CARBON 18K 5% 1/4W (A27)	
R1073	1-249-437-11	CARBON 47K 5% 1/4W	
R1074	1-249-417-11	CARBON 1K 5% 1/4W F	
R1095	1-249-433-11	CARBON 22K 5% 1/4W (A27, *11)	
R1222	1-249-415-11	CARBON 680 5% 1/4W F	
R1223	1-249-415-11	CARBON 680 5% 1/4W F	
R1226	1-215-890-11	METAL OXIDE 470 5% 2W F	
R1233	1-249-433-11	CARBON 22K 5% 1/4W	
R1234	1-249-433-11	CARBON 22K 5% 1/4W	
R1235	1-249-437-11	CARBON 47K 5% 1/4W	
R1236	1-249-441-11	CARBON 100K 5% 1/4W	
R1237	1-249-429-11	CARBON 10K 5% 1/4W	
R1240	1-249-438-11	CARBON 56K 5% 1/4W	
R1241	1-249-385-11	CARBON 2.2 5% 1/6W F (★:A)	
R1242	1-249-385-11	CARBON 2.2 5% 1/6W F (★:A)	
R1243	1-249-385-11	CARBON 2.2 5% 1/6W F (★:A)	
R1244	1-249-385-11	CARBON 2.2 5% 1/6W F (★:A)	
R1272	1-249-415-11	CARBON 680 5% 1/4W F	
R1273	1-249-415-11	CARBON 680 5% 1/4W F	
R1290	1-249-437-11	CARBON 47K 5% 1/4W	
R1301	1-249-429-11	CARBON 10K 5% 1/4W	
R1302	1-249-429-11	CARBON 10K 5% 1/4W	
R1306	1-249-433-11	CARBON 22K 5% 1/4W	
R1309	1-249-433-11	CARBON 22K 5% 1/4W	
R1321	1-249-417-11	CARBON 1K 5% 1/4W F	
R1322	1-249-429-11	CARBON 10K 5% 1/4W	
R1345	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1346	1-249-425-11	CARBON 4.7K 5% 1/4W F (★:C)	
R1347	1-249-417-11	CARBON 1K 5% 1/4W F	

MAIN	SURROUND	PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No. Part No. Description Remarks

< VARIABLE RESISTOR >

RV301 1-238-601-11 RES, ADJ, CARBON 22K  
RV302 1-238-601-11 RES, ADJ, CARBON 22K

< RELAY >

RY1201 1-515-533-11 RELAY  
RY1201 1-515-920-11 RELAY (24V) (D209, \*8)

< TRANSFORMER >

T301 1-404-807-11 TRANSFORMER, DISCRIMINATOR  
T302 1-235-126-00 ENCAPSULATED COMPONENT (★:A)

< TERMINAL >

TM301 1-537-264-11 TERMINAL BOARD (ANTENNA) (A27, \*3, 10, 11)  
\* TM301 1-537-288-11 TERMINAL BOARD, ANTENNA (PAL) (ANTENNA)  
(\*4, 5, 6, 7, 8, 9)

< TEST PIN >

\* TP1 1-560-060-00 PIN, CONNECTOR 2P

< VIBRATOR >

XT501 1-577-126-21 VIBRATOR, CRYSTAL  
XT501 1-579-383-11 VIBRATOR, CRYSTAL

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\* A-4356-640-A PANEL BOARD, COMPLETE (\*1)  
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\* A-4356-736-A PANEL BOARD, COMPLETE (\*2)  
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\* A-4356-623-A PANEL BOARD, COMPLETE (\*3)  
\*\*\*\*\*  
\* A-4356-930-A PANEL BOARD, COMPLETE (\*4)  
\*\*\*\*\*  
\* A-4360-822-A PANEL BOARD, COMPLETE (\*5)  
\*\*\*\*\*  
\* A-4356-924-A PANEL BOARD, COMPLETE (\*6)  
\*\*\*\*\*  
\* A-4356-608-A PANEL BOARD, COMPLETE (\*7)  
\*\*\*\*\*  
\* A-4360-541-A PANEL BOARD, COMPLETE (\*8)  
\*\*\*\*\*  
\* A-4360-531-A PANEL BOARD, COMPLETE (\*9)  
\*\*\*\*\*  
\* A-4360-520-A PANEL BOARD, COMPLETE (\*10)  
\*\*\*\*\*  
\* A-4360-509-A PANEL BOARD, COMPLETE (\*11)  
\*\*\*\*\*  
\* 1-646-477-11 H. P BOARD  
\*\*\*\*\*

Ref. No. Part No. Description Remarks

\* 1-646-478-11 POWER SUPPLY (B) BOARD  
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\* 1-646-479-11 MIC BOARD (A27)  
\*\*\*\*\*

\* 1-646-480-11 STAND-BY SW BOARD  
\*\*\*\*\*

\* 1-646-497-11 VR BOARD  
\*\*\*\*\*

\* 1-533-213-11 HOLDER, FUSE (\*2, D259)  
\* 1-533-213-31 HOLDER, FUSE (\*2, D259)  
1-533-217-31 HOLDER, FUSE (D209)  
\* 1-533-293-11 FUSE HOLDER (\*2, D259)  
\* 4-942-301-01 HOLDER, FL TUBE

\* 4-949-935-31 CUSHION (FL) (\*2, D259)

< CAPACITOR >

C603 1-136-169-00 FILM 0.22uF 5% 50V  
C604 1-164-159-11 CERAMIC 0.1uF 50V  
C605 1-125-486-11 DOUBLE LAYERS 0.22F 5.5V  
C606 1-164-159-11 CERAMIC 0.1uF 50V  
C607 1-124-907-11 ELECT 10uF 20% 50V

C608 1-161-379-00 CERAMIC 0.01uF 20% 25V  
C609 1-161-379-00 CERAMIC 0.01uF 20% 25V  
C610 1-162-286-31 CERAMIC 220PF 10% 50V  
C650 1-124-907-11 ELECT 10uF 20% 50V  
C1101 1-124-257-00 ELECT 2.2uF 20% 50V

C1102 1-124-589-11 ELECT 47uF 20% 16V  
C1103 1-162-282-31 CERAMIC 100PF 10% 50V  
C1104 1-124-257-00 ELECT 2.2uF 20% 50V  
C1105 1-124-464-11 ELECT 0.22uF 20% 50V  
C1106 1-136-161-00 FILM 0.047uF 5% 50V

C1107 1-136-155-00 FILM 0.015uF 5% 50V  
C1108 1-136-155-00 FILM 0.015uF 5% 50V  
C1109 1-137-437-11 FILM 0.0056uF 5% 50V  
C1110 1-161-327-00 CERAMIC 0.0033uF 20% 16V  
C1111 1-136-155-00 FILM 0.015uF 5% 50V

C1112 1-136-157-00 FILM 0.022uF 5% 50V  
C1113 1-136-153-00 FILM 0.01uF 5% 50V  
C1114 1-161-377-00 CERAMIC 0.0047uF 20% 16V  
C1115 1-124-257-00 ELECT 2.2uF 20% 50V  
C1120 1-161-379-00 CERAMIC 0.01uF 20% 25V

C1121 1-161-379-00 CERAMIC 0.01uF 20% 25V  
C1123 1-162-286-31 CERAMIC 220PF 10% 50V  
C1131 1-162-215-31 CERAMIC 47PF 5% 50V  
C1132 1-162-215-31 CERAMIC 47PF 5% 50V  
C1151 1-124-257-00 ELECT 2.2uF 20% 50V

C1152 1-124-589-11 ELECT 47uF 20% 16V  
C1153 1-162-282-31 CERAMIC 100PF 10% 50V  
C1154 1-124-257-00 ELECT 2.2uF 20% 50V

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description	Remarks
C1155	1-124-464-11	ELECT 0.22uF	20% 50V
C1156	1-136-161-00	FILM 0.047uF	5% 50V
C1157	1-136-155-00	FILM 0.015uF	5% 50V
C1158	1-136-155-00	FILM 0.015uF	5% 50V
C1159	1-137-437-11	FILM 0.0056uF	5% 50V
C1160	1-161-327-00	CERAMIC 0.0033uF	20% 16V
C1161	1-136-155-00	FILM 0.015uF	5% 50V
C1162	1-136-157-00	FILM 0.022uF	5% 50V
C1163	1-136-153-00	FILM 0.01uF	5% 50V
C1164	1-161-377-00	CERAMIC 0.0047uF	20% 16V
C1165	1-124-257-00	ELECT 2.2uF	20% 50V
C1173	1-162-286-31	CERAMIC 220PF	10% 50V
C1181	1-162-215-31	CERAMIC 47PF	5% 50V
C1182	1-162-215-31	CERAMIC 47PF	5% 50V
C1198	1-161-379-00	CERAMIC 0.01uF	20% 25V
C1237	1-162-282-31	CERAMIC 100PF	10% 50V (★:A)
C1238	1-162-282-31	CERAMIC 100PF	10% 50V (★:A)
C1401	1-162-294-31	CERAMIC 0.001uF	10% 50V (A27)
C1402	1-124-916-11	ELECT 22uF	20% 63V (A27)
C1403	1-124-916-11	ELECT 22uF	20% 63V (A27)
C1406	1-124-443-00	ELECT 100uF	20% 10V (*2)
C1408	1-126-163-11	ELECT 4.7uF	20% 50V (A27)
C1409	1-161-379-00	CERAMIC 0.01uF	20% 25V (A27)
C1410	1-126-163-11	ELECT 4.7uF	20% 50V (A27, D259)
C1411	1-124-443-00	ELECT 100uF	20% 10V (*1)
C1601	1-124-925-11	ELECT 2.2uF	20% 100V (A27)
C1602	1-124-463-00	ELECT 0.1uF	20% 50V (A27)
C1603	1-124-925-11	ELECT 2.2uF	20% 100V (A27)
C1604	1-162-294-31	CERAMIC 0.001uF	10% 50V (A27)
C1605	1-162-215-31	CERAMIC 47PF	5% 50V (A27)
C1606	1-162-282-31	CERAMIC 100PF	10% 50V (A27)
C1607	1-162-215-31	CERAMIC 47PF	5% 50V (A27)
C1608	1-124-589-11	ELECT 47uF	20% 16V (A27)
C1609	1-124-589-11	ELECT 47uF	20% 16V (A27)
C1610	1-162-282-31	CERAMIC 100PF	10% 50V (A27)

< CONNECTOR >

* CN601	1-568-830-11	SOCKET, CONNECTOR 11P
CN1101	1-568-802-11	SOCKET, CONNECTOR 19P

< DIODE >

D601	8-719-987-63	DIODE 1N4148M
D602	8-719-010-26	DIODE UZ-3.9BSB
D603	8-719-987-63	DIODE 1N4148M
D604	8-719-987-63	DIODE 1N4148M
D605	8-719-987-63	DIODE 1N4148M
D606	8-719-933-48	DIODE HZS7B3L
D611	8-719-987-63	DIODE 1N4148M
D612	8-719-987-63	DIODE 1N4148M
D613	8-719-987-63	DIODE 1N4148M

Ref. No.	Part No.	Description	Remarks
D614	8-719-987-63	DIODE 1N4148M	
D615	8-719-987-63	DIODE 1N4148M	
D616	8-719-987-63	DIODE 1N4148M	
D622	8-719-987-63	DIODE 1N4148M (*1, 4, 8, 11)	
D623	8-719-987-63	DIODE 1N4148M (A27, *11)	
D624	8-719-987-63	DIODE 1N4148M (*5)	
D625	8-719-987-63	DIODE 1N4148M	
D626	8-719-987-63	DIODE 1N4148M	
D629	8-719-987-63	DIODE 1N4148M	
D641	8-719-200-82	DIODE 11ES2	
D1130	8-719-301-37	LED SEL2210S-CD	
D1131	8-719-301-37	LED SEL2210S-CD	
D1132	8-719-301-37	LED SEL2210S-CD	
D1133	8-719-301-37	LED SEL2210S-CD	
D1134	8-719-301-37	LED SEL2210S-CD	
D1141	8-719-301-37	LED SEL2210S-CD	
D1145	8-719-313-69	DIODE SEL3210S-CD	
D1151	8-719-987-63	DIODE 1N4148M	
D1152	8-719-987-63	DIODE 1N4148M	
D1153	8-719-987-63	DIODE 1N4148M	
D1154	8-719-987-63	DIODE 1N4148M	

< FILTER >

FL601	1-519-732-11	INDICATOR TUBE, FLUORESCENT
FL1401	1-519-648-21	INDICATOR TUBE, FLUORESCENT (A27)

< IC >

IC601	8-759-096-99	IC uPD75212ACW-A47
IC602	8-749-922-36	IC GPIU50XB
IC1101	8-759-634-51	IC M5218AP
IC1102	8-759-634-51	IC M5218AP
IC1103	8-759-820-62	IC LB1639
IC1104	8-759-916-12	IC TC74HC00P
IC1401	8-759-065-87	IC XR-1096 (A27)
IC1601	8-759-634-51	IC M5218AP (A27)

< JACK >

J601	1-691-002-11	JACK, LARGE TYPE (HEADPHONES) (*2)
J601	1-573-151-11	JACK, LARGE TYPE (HEADPHONES) (*1)
* J1201	1-691-003-11	JACK, LARGE TYPE (MIC)

< COIL >

L601	1-410-521-11	INDUCTOR 100uH
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< TRANSISTOR >

Q601	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE (*1, D209)
Q602	8-729-900-80	TRANSISTOR DTC114ES
Q603	8-729-900-80	TRANSISTOR DTC114ES
Q1101	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)

PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR
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Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
Q1101	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R1114	1-249-429-11	CARBON	10K 5% 1/4W
Q1102	8-729-141-26	TRANSISTOR	2SC3622A-LK	R1115	1-249-429-11	CARBON	10K 5% 1/4W
Q1121	8-729-900-36	TRANSISTOR	DTC124ES	R1116	1-247-852-11	CARBON	7.5K 5% 1/4W
Q1122	8-729-119-76	TRANSISTOR	2SA1175-HFE	R1117	1-247-852-11	CARBON	7.5K 5% 1/4W
Q1136	8-729-900-36	TRANSISTOR	DTC124ES	R1118	1-249-425-11	CARBON	4.7K 5% 1/4W F
Q1138	8-729-900-36	TRANSISTOR	DTC124ES	R1119	1-249-425-11	CARBON	4.7K 5% 1/4W F
Q1141	8-729-900-63	TRANSISTOR	DTA124ES	R1120	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q1142	8-729-900-63	TRANSISTOR	DTA124ES	R1121	1-249-423-11	CARBON	3.3K 5% 1/4W F
Q1143	8-729-900-80	TRANSISTOR	DTC114ES	R1122	1-247-887-00	CARBON	220K 5% 1/4W
Q1144	8-729-900-80	TRANSISTOR	DTC114ES	R1123	1-249-421-11	CARBON	2.2K 5% 1/4W F
Q1145	8-729-900-61	TRANSISTOR	DTA114ES	R1124	1-249-425-11	CARBON	4.7K 5% 1/4W F
Q1151	8-729-620-05	TRANSISTOR	2SC2603-EF (*2, D259)	R1125	1-249-433-11	CARBON	22K 5% 1/4W
Q1151	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, D209)	R1126	1-249-423-11	CARBON	3.3K 5% 1/4W F (A27)
Q1152	8-729-141-26	TRANSISTOR	2SC3622A-LK	R1127	1-249-436-11	CARBON	39K 5% 1/4W (A27)
< RESISTOR >				R1130	1-249-412-11	CARBON	390 5% 1/4W F
R601	1-249-429-11	CARBON	10K 5% 1/4W	R1132	1-249-412-11	CARBON	390 5% 1/4W F
R602	1-249-429-11	CARBON	10K 5% 1/4W	R1133	1-249-412-11	CARBON	390 5% 1/4W F
R603	1-249-423-11	CARBON	3.3K 5% 1/4W F	R1135	1-249-433-11	CARBON	22K 5% 1/4W
R604	1-249-437-11	CARBON	47K 5% 1/4W (*4, 8)	R1142	1-249-412-11	CARBON	390 5% 1/4W F
R605	1-249-433-11	CARBON	22K 5% 1/4W	R1143	1-249-433-11	CARBON	22K 5% 1/4W
R606	1-249-433-11	CARBON	22K 5% 1/4W	R1145	1-249-412-11	CARBON	390 5% 1/4W F
R607	1-249-439-11	CARBON	68K 5% 1/4W	R1149	1-249-429-11	CARBON	10K 5% 1/4W
R608	1-249-417-11	CARBON	1K 5% 1/4W F	R1151	1-249-441-11	CARBON	100K 5% 1/4W
R609	1-249-405-11	CARBON	100 5% 1/4W F	R1152	1-249-417-11	CARBON	1K 5% 1/4W F
R610	1-249-429-11	CARBON	10K 5% 1/4W	R1154	1-249-441-11	CARBON	100K 5% 1/4W
R611	1-249-437-11	CARBON	47K 5% 1/4W	R1155	1-249-433-11	CARBON	22K 5% 1/4W
R612	1-249-417-11	CARBON	1K 5% 1/4W F	R1156	1-249-424-11	CARBON	3.9K 5% 1/4W F
R613	1-249-425-11	CARBON	4.7K 5% 1/4W F	R1157	1-249-441-11	CARBON	100K 5% 1/4W
R614	1-249-393-11	CARBON	10 5% 1/4W F	R1158	1-249-427-11	CARBON	6.8K 5% 1/4W F
R621	1-249-433-11	CARBON	22K 5% 1/4W	R1159	1-249-412-11	CARBON	390 5% 1/4W F
R622	1-249-433-11	CARBON	22K 5% 1/4W	R1160	1-249-431-11	CARBON	15K 5% 1/4W
R623	1-249-433-11	CARBON	22K 5% 1/4W	R1161	1-249-439-11	CARBON	68K 5% 1/4W
R624	1-249-433-11	CARBON	22K 5% 1/4W	R1162	1-249-433-11	CARBON	22K 5% 1/4W
R625	1-249-417-11	CARBON	1K 5% 1/4W F (*1, D259)	R1163	1-249-431-11	CARBON	15K 5% 1/4W
R642	1-249-409-11	CARBON	220 5% 1/4W F	R1164	1-249-429-11	CARBON	10K 5% 1/4W
R643	1-249-417-11	CARBON	1K 5% 1/4W F (*2, D209, 8, 10, 11)	R1165	1-249-429-11	CARBON	10K 5% 1/4W
R1065	1-249-409-11	CARBON	220 5% 1/4W F (*2)	R1166	1-247-852-11	CARBON	7.5K 5% 1/4W
R1101	1-249-441-11	CARBON	100K 5% 1/4W	R1167	1-247-852-11	CARBON	7.5K 5% 1/4W
R1102	1-249-417-11	CARBON	1K 5% 1/4W F	R1168	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1103	1-249-431-11	CARBON	15K 5% 1/4W	R1169	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1104	1-249-441-11	CARBON	100K 5% 1/4W	R1170	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1105	1-249-433-11	CARBON	22K 5% 1/4W	R1171	1-249-423-11	CARBON	3.3K 5% 1/4W F
R1106	1-249-424-11	CARBON	3.9K 5% 1/4W F	R1172	1-247-887-00	CARBON	220K 5% 1/4W
R1107	1-249-441-11	CARBON	100K 5% 1/4W	R1173	1-249-421-11	CARBON	2.2K 5% 1/4W F
R1108	1-249-427-11	CARBON	6.8K 5% 1/4W F	R1174	1-249-425-11	CARBON	4.7K 5% 1/4W F
R1109	1-249-412-11	CARBON	390 5% 1/4W F	R1176	1-249-423-11	CARBON	3.3K 5% 1/4W F (A27)
R1110	1-249-431-11	CARBON	15K 5% 1/4W	R1177	1-249-436-11	CARBON	39K 5% 1/4W (A27)
R1111	1-249-439-11	CARBON	68K 5% 1/4W	R1401	1-249-418-11	CARBON	1.2K 5% 1/4W F (A27)
R1112	1-249-433-11	CARBON	22K 5% 1/4W	R1402	1-247-881-00	CARBON	120K 5% 1/4W (A27)
R1113	1-249-431-11	CARBON	15K 5% 1/4W	R1403	1-247-881-00	CARBON	120K 5% 1/4W (A27)
				R1405	1-249-409-11	CARBON	220 5% 1/4W F (*1)



PANEL	H. P	POWER SUPPLY (B)	MIC	STAND-BY	VR	POWER AMPLIFIER
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Ref. No.	Part No.	Description	Remarks
R1411	1-239-054-11	COMPOSITION CIRCUIT BLOCK	(A27)
R1412	1-239-054-11	COMPOSITION CIRCUIT BLOCK	(A27)
R1601	1-249-429-11	CARBON 10K 5% 1/4W	(A27)
R1602	1-249-417-11	CARBON 1K 5% 1/4W	F (A27)
R1603	1-249-412-11	CARBON 390 5% 1/4W	F (A27)
< VARIABLE RESISTOR >			
RV1101	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)	
RV1102	1-223-251-11	RES, VAR, CARBON 100K/100K (DBFB)	
RV1103	1-223-289-11	RES, VAR, SLIDE 100K (100Hz)	
RV1104	1-223-289-11	RES, VAR, SLIDE 100K (330Hz)	
RV1105	1-223-289-11	RES, VAR, SLIDE 100K (1KHz)	
RV1106	1-223-289-11	RES, VAR, SLIDE 100K (3.3KHz)	
RV1107	1-223-289-11	RES, VAR, SLIDE 100K (10KHz)	
RV1108	1-223-253-11	RES, VAR, CARBON 100K/100K (BALANCE)	
RV1109	1-223-291-11	RES, VAR, CARBON 100K/100K (VOLUME)	
RV1153	1-223-289-11	RES, VAR, SLIDE 100K (100Hz)	
RV1154	1-223-289-11	RES, VAR, SLIDE 100K (330Hz)	
RV1155	1-223-289-11	RES, VAR, SLIDE 100K (1KHz)	
RV1156	1-223-289-11	RES, VAR, SLIDE 100K (3.3KHz)	
RV1157	1-223-289-11	RES, VAR, SLIDE 100K (10KHz)	
< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (1)	
S602	1-554-303-21	SWITCH, TACTILE (2)	
S603	1-554-303-21	SWITCH, TACTILE (3)	
S604	1-554-303-21	SWITCH, TACTILE (4)	
S605	1-554-303-21	SWITCH, TACTILE (5)	
S606	1-554-303-21	SWITCH, TACTILE (6)	
S607	1-554-303-21	SWITCH, TACTILE (7)	
S608	1-554-303-21	SWITCH, TACTILE (8)	
S609	1-554-303-21	SWITCH, TACTILE (9)	
S610	1-554-303-21	SWITCH, TACTILE (0)	
S611	1-554-303-21	SWITCH, TACTILE (+)	
S612	1-554-303-21	SWITCH, TACTILE (-)	
S613	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S614	1-554-303-21	SWITCH, TACTILE (BAND SELECT)	
S615	1-554-303-21	SWITCH, TACTILE (ST/MUTE)	
S616	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S618	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)	
S619	1-554-303-21	SWITCH, TACTILE (VIDEO) (A27, *4, D259)	
S620	1-554-303-21	SWITCH, TACTILE (TAPE)	
S621	1-554-303-21	SWITCH, TACTILE (CD)	
S622	1-554-303-21	SWITCH, TACTILE (TUNER)	
S623	1-554-303-21	SWITCH, TACTILE (PHONO)	
S1102	1-571-305-11	SWITCH, PUSH (EQUALIZER) (1 KEY)	

Ref. No.	Part No.	Description	Remarks
< VIBRATOR >			
X601	1-567-775-11	VIBRATOR, CERAMIC	
*****			
*	A-4356-649-A	POWER AMPLIFIER BOARD, COMPLETE (#1)	
*****			
*	A-4356-749-A	POWER AMPLIFIER BOARD, COMPLETE (#2)	
*****			
*	A-4356-628-A	POWER AMPLIFIER BOARD, COMPLETE (#3)	
*****			
*	A-4356-935-A	POWER AMPLIFIER BOARD, COMPLETE (#4, 6)	
*****			
*	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (#5, 7)	
*****			
*	A-4360-546-A	POWER AMPLIFIER BOARD, COMPLETE (#8)	
*****			
*	A-4360-537-A	POWER AMPLIFIER BOARD, COMPLETE (#9)	
*****			
*	A-4360-527-A	POWER AMPLIFIER BOARD, COMPLETE (#10)	
*****			
*	A-4360-516-A	POWER AMPLIFIER BOARD, COMPLETE (#11)	
*****			
< CAPACITOR >			
C1201	1-124-257-00	ELECT 2.2uF 20% 50V	
C1202	1-162-286-31	CERAMIC 220PF 10% 50V	
(EXCEPT ★:A)			
C1202	1-162-290-31	CERAMIC 470PF 10% 50V	(★:A)
C1203	1-162-286-31	CERAMIC 220PF 10% 50V	
(EXCEPT ★:A)			
C1203	1-162-292-31	CERAMIC 680PF 10% 50V	(★:A)
C1204	1-124-477-11	ELECT 47uF 20% 25V	
C1205	1-124-910-11	ELECT 47uF 20% 50V	
C1206	1-124-122-11	ELECT 100uF 20% 50V	
C1207	1-136-165-00	FILM 0.1uF 5% 50V	
C1208	1-124-916-11	ELECT 22uF 20% 63V	
C1209	1-164-159-11	CERAMIC 0.1uF 50V	
C1210	1-136-163-00	FILM 0.068uF 5% 50V	
C1211	1-136-163-00	FILM 0.068uF 5% 50V	
C1220	1-124-910-11	ELECT 47uF 20% 50V	
C1230	1-161-494-00	CERAMIC 0.022uF 25V	(★:A)
C1231	1-161-494-00	CERAMIC 0.022uF 25V	(★:A)
C1232	1-161-494-00	CERAMIC 0.022uF 25V	(★:A)
C1233	1-161-494-00	CERAMIC 0.022uF 25V	(★:A)
C1251	1-124-257-00	ELECT 2.2uF 20% 50V	
C1252	1-162-286-31	CERAMIC 220PF 10% 50V	
(EXCEPT ★:A)			
C1252	1-162-290-31	CERAMIC 470PF 10% 50V	(★:A)

## POWER AMPLIFIER

## POWER SUPPLY

Ref. No.	Part No.	Description	Remarks
C1253	1-162-286-31	CERAMIC 220PF 10% 50V	(EXCEPT ★:A)
C1253	1-162-292-31	CERAMIC 680PF 10% 50V	(★:A)
C1254	1-124-477-11	ELECT 47uF 20% 25V	
C1255	1-124-910-11	ELECT 47uF 20% 50V	
C1256	1-124-122-11	ELECT 100uF 20% 50V	
C1257	1-136-165-00	FILM 0.1uF 5% 50V	
C1260	1-136-163-00	FILM 0.068uF 5% 50V	
C1261	1-136-163-00	FILM 0.068uF 5% 50V	
C1280	1-161-494-00	CERAMIC 0.022uF 25V	(★:A)

## &lt; CONNECTOR &gt;

- \* CN1201 1-564-518-11 PLUG, CONNECTOR 3P  
 \* CN1202 1-564-522-11 PLUG, CONNECTOR 7P

## &lt; DIODE &gt;

D1201	8-719-987-63	DIODE 1N4148M	
D1251	8-719-987-63	DIODE 1N4148M	

## &lt; IC &gt;

IC1201	8-749-900-24	IC STK-4162MK2 (A27, *11)	
IC1201	8-749-900-96	IC STK-4142MK2 (D209, *8, 9, 10)	

## &lt; COIL &gt;

L1221	1-420-872-00	COIL, AIR CORE	
L1251	1-420-872-00	COIL, AIR CORE	

## &lt; TRANSISTOR &gt;

Q1201	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q1202	8-729-900-80	TRANSISTOR DTC114ES	
Q1203	8-729-620-05	TRANSISTOR 2SC2603-EF (*2, D259)	
Q1203	8-729-119-78	TRANSISTOR 2SC2785-HFE (*1, D209)	
Q1251	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	

## &lt; RESISTOR &gt;

R1201	1-249-417-11	CARBON 1K 5% 1/4W F	
R1202	1-249-438-11	CARBON 56K 5% 1/4W	
R1203	1-249-417-11	CARBON 1K 5% 1/4W F	
R1204	1-249-438-11	CARBON 56K 5% 1/4W	
R1205	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1206	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1207	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1208	1-249-425-11	CARBON 4.7K 5% 1/4W F	
△R1209	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R1210	1-217-151-00	RES, METAL PLATE 0.22	
R1211	1-249-417-11	CARBON 1K 5% 1/4W F	
R1212	1-249-431-11	CARBON 15K 5% 1/4W	
R1213	1-249-441-11	CARBON 100K 5% 1/4W	
R1214	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1215	1-249-421-11	CARBON 2.2K 5% 1/4W F	

Ref. No.	Part No.	Description	Remarks
R1216	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1217	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1218	1-249-397-11	CARBON 22 5% 1/4W F	
R1219	1-249-397-11	CARBON 22 5% 1/4W F	
R1220	1-249-397-11	CARBON 22 5% 1/4W F	
R1221	1-249-397-11	CARBON 22 5% 1/4W F	
R1227	1-249-429-11	CARBON 10K 5% 1/4W	
R1228	1-247-881-00	CARBON 120K 5% 1/4W	
R1229	1-249-439-11	CARBON 68K 5% 1/4W	
R1230	1-249-439-11	CARBON 68K 5% 1/4W	
R1231	1-249-417-11	CARBON 1K 5% 1/4W F	
R1232	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R1238	1-249-433-11	CARBON 22K 5% 1/4W	
R1239	1-249-426-11	CARBON 5.6K 5% 1/4W	
R1241	1-249-383-81	CARBON 1.5 5% 1/4W F (*3, 5, 7)	
R1251	1-249-417-11	CARBON 1K 5% 1/4W F	
R1252	1-249-438-11	CARBON 56K 5% 1/4W	
R1253	1-249-417-11	CARBON 1K 5% 1/4W F	
R1254	1-249-438-11	CARBON 56K 5% 1/4W	
R1255	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1256	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1257	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1258	1-249-425-11	CARBON 4.7K 5% 1/4W F	
△R1259	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R1260	1-217-151-00	RES, METAL PLATE 0.22	
R1261	1-249-417-11	CARBON 1K 5% 1/4W F	
R1262	1-249-431-11	CARBON 15K 5% 1/4W	
R1263	1-249-441-11	CARBON 100K 5% 1/4W	
R1268	1-249-397-11	CARBON 22 5% 1/4W F	
R1269	1-249-397-11	CARBON 22 5% 1/4W F	
R1270	1-249-397-11	CARBON 22 5% 1/4W F	
R1271	1-249-397-11	CARBON 22 5% 1/4W F	

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- \* 1-646-474-11 POWER SUPPLY BOARD

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## &lt; CAPACITOR &gt;

C1301	1-161-744-00	CERAMIC 0.01uF 400V	
C1314	1-124-122-11	ELECT 100uF 20% 50V	
C1315	1-124-927-11	ELECT 4.7uF 20% 100V	
C1316	1-124-910-11	ELECT 47uF 20% 50V	
C1318	1-124-636-00	ELECT 3300uF 20% 25V	
C1348	1-164-159-11	CERAMIC 0.1uF 50V	
C1362	1-124-916-11	ELECT 22uF 20% 63V	(*4, 5, 6, 7, D259)

**Note:**  
 The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

**Note:**  
 Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

**POWER SUPPLY**

Ref. No.	Part No.	Description	Remarks
< CONNECTOR >			
* CN1301	1-564-321-00	PIN, CONNECTOR 2P	
CN1311	1-506-468-11	PIN, CONNECTOR 3P	
< DIODE >			
D1307	8-719-002-60	DIODE UZL-33L	
D1309	8-719-014-66	DIODE UZP-5.6B	
D1311	8-719-200-82	DIODE 11ES2	
D1370	8-719-200-82	DIODE 11ES2	
D1321	8-719-987-63	DIODE 1N4148M	
D1322	8-719-987-63	DIODE 1N4148M	
D1354	8-719-200-82	DIODE 11ES2	
D1355	8-719-200-82	DIODE 11ES2	
< TRANSISTOR >			
Q1301	8-729-141-83	TRANSISTOR 2SA473	
< RESISTOR >			
R1303	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R1304	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1391	1-202-725-00	SOLID 3.3M 10% 1/2W (*11)	
< RELAY >			
RY1301	1-515-720-11	RELAY	
RY1301	1-515-738-11	RELAY, POWER	
< TRANSFORMER >			
△T1302	1-449-723-31	TRANSFORMER, POWER (EXCEPT *11)	
△T1302	1-450-786-11	TRANSFORMER, POWER (*11)	
< VOLTAGE SELECTION >			
△VS1301	1-572-266-11	SWITCH, VOLTAGE SELECTION (A27)	
*****			
MISCELLANEOUS			
*****			
18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
19	1-590-576-11	WIRE, FLAT TYPE (11 CORE)	
19	1-590-576-21	WIRE, FLAT TYPE (11 CORE) (D209)	
△64	1-575-651-11	CORD, POWER (*4, 5, 6, 7, 8, 9)	
△64	1-575-653-11	CORD, POWER (A27:E)	
△64	1-690-608-11	CORD, POWER (A27:AU2)	
△64	1-690-609-21	CORD, POWER (*11)	
△64	1-696-570-21	CORD, POWER (*3, 10)	
△64	1-696-848-21	CORD, POWER (*1)	
△F1301	1-532-350-00	FUSE 4A (A27, D209, *9, 10)	
△F1301	1-576-108-11	FUSE 4A (*8, 11)	
△F1302	1-532-350-00	FUSE 4A (A27, D209, *9, 10)	
△F1302	1-576-108-11	FUSE 4A (*8, 11)	

Ref. No.	Part No.	Description	Remarks
△F1303	1-532-203-00	FUSE 2A (D209, *9, 10)	
△F1303	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
△F1303	1-576-104-11	FUSE 2A (*8)	
△F1304	1-532-203-00	FUSE 2A (D209, *9, 10)	
△F1304	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
△F1304	1-576-104-11	FUSE 2A (*8)	
△F1305	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
△F1305	1-576-105-11	FUSE 2.5A (*8, 11)	
△F1306	1-532-286-00	FUSE 2.5A (A27, D209, *9, 10)	
△F1306	1-576-105-11	FUSE 2.5A (*8, 11)	
△T1301	1-423-431-11	TRANSFORMER, POWER (*11)	
△T1301	1-423-437-11	TRANSFORMER, POWER (D209)	
△T1301	1-423-437-21	TRANSFORMER, POWER (*8, 9, 10)	
△T1301	1-423-438-11	TRANSFORMER, POWER (*1)	
△T1301	1-423-438-21	TRANSFORMER, POWER (*2)	
*****			
ACCESSORIES & PACKING MATERIALS			
*****			
	1-465-963-11	COMMANDER, STANDARD (RM-S271)	
	1-501-374-11	ANTENNA, LOOP (*4, 5, 7, 8, D259:AE2)	
	1-501-536-11	ANTENNA (*4, 5, 7, 8, D259:AE2)	
	1-696-860-11	CORD, CONNECTION 13P (*4, 5, 7, 8, D259:AE2)	
*	3-703-713-41	STICKER, SONY SYMBOL (10)	
	3-707-584-01	COVER, BATTERY	
	3-756-331-41	MANUAL, INSTRUCTION (ENGLISH/FRENCH/ SPANISH/PORTUGUESE) (D209:AE2)	
	3-756-331-51	MANUAL, INSTRUCTION (GERMANY/DUTCH/ SWEDISH/ITALIAN) (D209:AE2, *4)	
	3-756-331-61	MANUAL, INSTRUCTION (DANISH/FINNISH) (*5)	
	3-756-333-41	MANUAL, INSTRUCTION (ENGLISH/FRENCH/ SPANISH/PORTUGUESE) (D259:AE2)	
	3-756-333-51	MANUAL, INSTRUCTION (GERMANY/DUTCH/ SWEDISH/ITALIAN) (D259:AE2, *8)	
*	4-956-903-01	INDIVIDUAL CARTON (D209:AE2, *4)	
*	4-958-606-01	CUSHION (D209:AE2, *4)	

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**HARDWARE LIST**  
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#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S
#2	7-685-871-01	SCREW +BVTT 3X6 (S)

**Note:**

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

**Note:**

Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

# PS-LX52/LX52P

## SONY SERVICE MANUAL

US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model  
PS-LX52

UK Model  
PS-LX52P

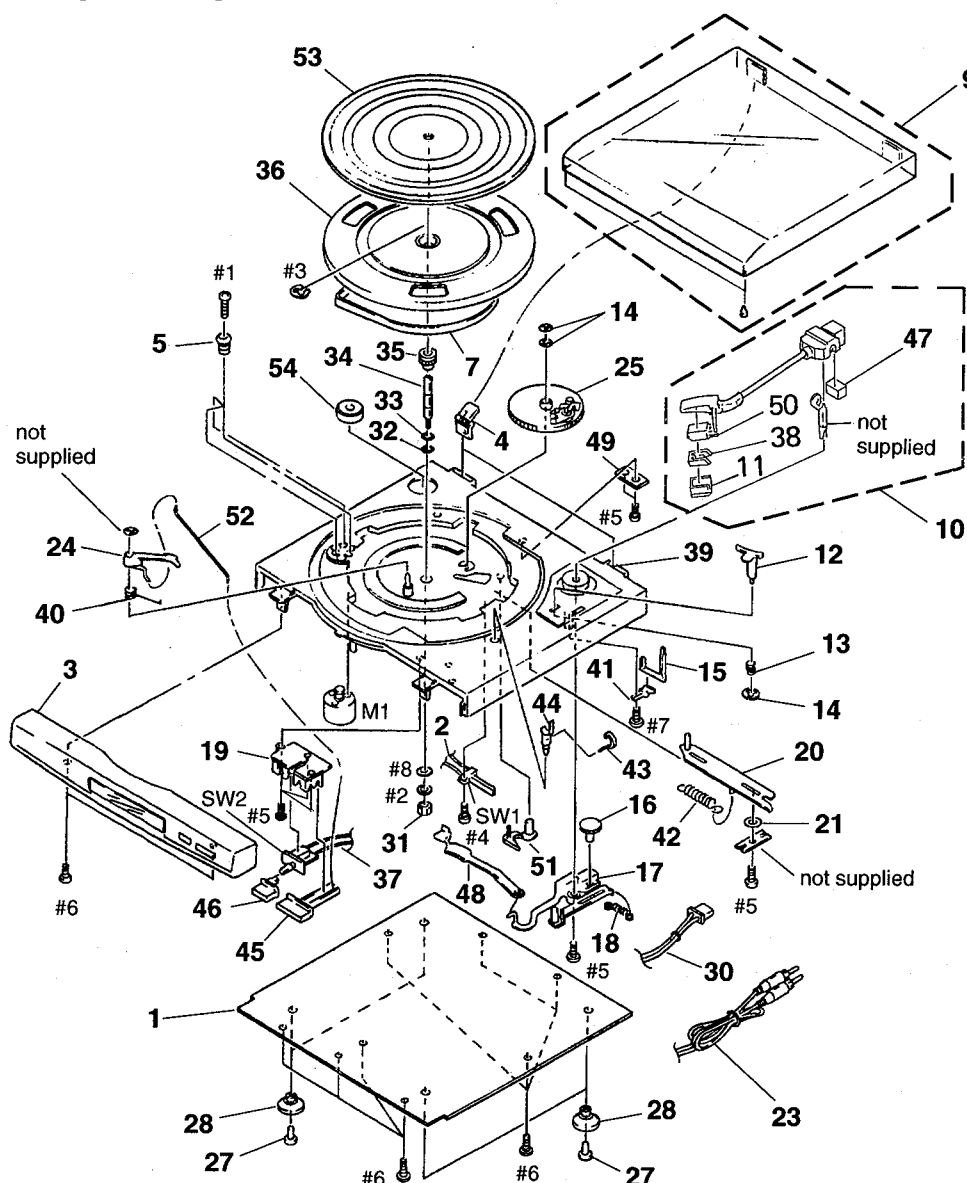
### CORRECTION-1

Correct your service manual as shown below.

Subject: Correction of EXPLODED VIEW (PS-LX52P)

(SPM-95043)

#### EXPLODED VIEW [PS-LX52P]



Note:

- Item marked "\*" are not stocked since they are seldom required for routine services. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-950-488-01	BOTTOM BOARD		36	4-947-494-01	TURNTABLE PLATTER	
2	1-696-144-11	WIRE (45) (RED)		37	1-696-143-11	WIRE (30) (WHT)	
3	A-4660-303-A	FRONT PANEL ASSY		38	4-951-290-01	STYLUS (CN-234)	
4	4-947-476-01	HINGE		39	4-947-475-01	MAIN CABINET (G)	
5	4-947-505-01	CUSHION MOTOR		40	4-947-496-01	SPRING (34)	
7	4-947-503-01	BELT		41	4-947-477-01	CUEING (BASE)	
9	A-4604-946-A	DUST COVER ASSY		42	4-947-485-01	SPRING (22)	
10	A-4604-940-A	ARM ASSY, TONE		43	4-947-490-01	ARM CLIP	
11	4-948-095-01	COVER, CARTRIDGE		44	4-947-491-01	ARM REST	
12	4-947-466-01	TONE ARM ELEVATOR		45	4-956-997-01	KNOB REJECT	
13	4-947-467-01	SPRING (6)		46	4-956-996-01	KNOB SPEED	
14	4-947-514-01	4MM CS RING		47	4-947-464-01	COUNTER WEIGHT	
15	4-947-468-01	LEVER, CUEING		* 48	4-947-487-01	RETURN LINK	
16	4-947-470-01	ADJUST CAM		* 49	1-644-410-11	PC BOARD	
* 17	4-947-471-01	LINK, RETURN		50	1-251-028-11	CARTRIDGE (MAIN)	
18	4-947-472-01	SPRING (9-1)		51	4-957-000-01	PLASTIC RETURN	
19	4-956-998-01	BUTTON BASE		52	4-948-101-01	SPRING (38)	
20	A-4660-302-A	LEVER RETURN ASSY		53	A-4674-087-A	TURN TABLE MAT ASSY	
21	3-659-350-00	WASHER		54	3-701-806-00	ADAPTOR, 45	
23	1-555-116-11	CORD, PHONE		M1	A-4604-945-A	MOTOR ASSY	
24	4-947-495-01	WIPER REJECT		SW1	1-570-666-11	SWITCH (LEAF)	
25	A-4604-916-A	GEAR ASSY, SPUR		SW2	1-571-089-11	PUSH SWITCH (SPEED)	
27	4-950-497-01	FOOT SEAT		#1	7-621-773-87	SCREW (64)	
28	4-950-490-01	PLASTIC STAND		#2	7-623-210-22	WASHER (57)	
30	1-557-109-21	CORD, DC		#3	7-624-110-04	6MM E RING	
31	4-947-510-01	NUT		#4	7-685-105-01	SCREW (59)	
32	3-451-162-00	WASHER (56)		#5	7-685-647-79	SCREW (58)	
33	3-701-445-21	WASHER		#6	7-685-646-79	SCREW (60)	
34	4-947-498-01	STELL BALL		#7	7-685-645-79	SCREW (68)	
35	4-947-497-01	GEAR		#8	7-688-005-01	WASHER (69)	

# PS-LX52/LX52P

## SERVICE MANUAL REVISED

US Model  
Canadian Model  
AEP Model  
E Model  
Australian Model  
PS-LX52  
UK Model  
PS-LX52P

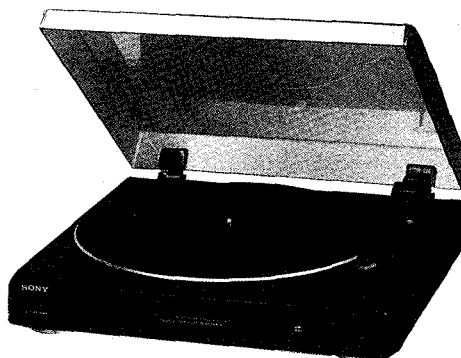


Photo : PS-LX52

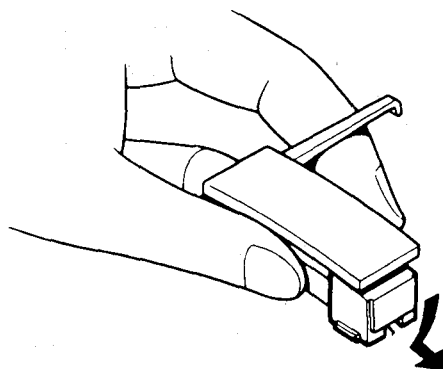
• PS-LX52P is the STEREO TURNTABLE SYSTEM in LBT-D109CD/LBT-A17CD/LBT-D108CD/LBT-D159CD/LBT-D209CD/LBT-D259CD/LBT-D309CD/LBT-D359CD.

### SPECIFICATIONS

<b>Turntable</b>	
Platter	30cm (12 in.)
Motor	DC servo motor
Drive system	Belt drive
Speed	33 $\frac{1}{3}$ rpm/45 rpm switchable
Wow and flutter	0.2% (WRMS)
Signal-to-noise ratio	60 dB (DIN-B)
Automatic System	Return, reject
<b>Tonearm</b>	
Type	Dynamically balanced
Pivot-to-stylus length	203 mm (8 in.)
Overall arm length	235 mm (9 $\frac{1}{4}$ in.)
<b>Cartridge</b>	
Type	Moving magnet type
Frequency response	20 Hz-20 kHz
Stylus	ND-155G
<b>General</b>	
Dimensions	355 x 94 x 345 mm(w/h/d) (14 x 3 $\frac{3}{4}$ x 13 $\frac{5}{8}$ inches)
Weight	Approx. 2.5 kg (5 lb 8 oz)
Power requirement	US, Canadian model: 120V AC, 60 Hz AEP, Italian, East European, CIS model: 220-230V AC, 50/60 Hz UK model: 12V DC PX, E, Saudi Arabia, Singapore, Malaysia model: 110-120V/220-240V AC, adjustable with the voltage selector, 50/60 Hz Australian model: 240V AC, 50 Hz
Power consumption	4W (except UK model)
Accessory supplied	45-rpm adaptor (1)
Optional accessories	Replacement stylus ND-155G Stat spray XP-C10 Cleaner XP-C1, XP-C2

Design and specifications subject to change without notice.

### REPLACING THE STYLUS



Replace the stylus after about 400 hours of use because using a worn stylus will damage records. An ND-155G replacement stylus is available at your Sony dealer. Be sure to turn the amplifier off before proceeding with replacement.

1. While holding the cartridge, detach the stylus assembly as illustrated.
2. Insert the new stylus into the cartridge.

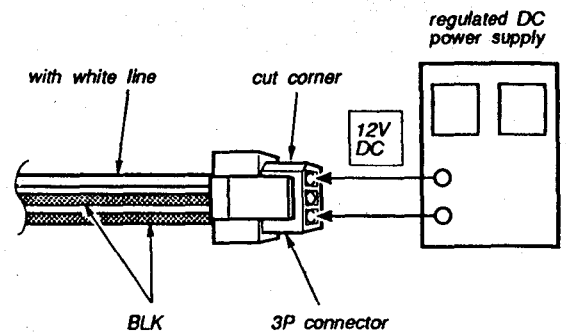


STEREO TURNTABLE SYSTEM  
**SONY**®

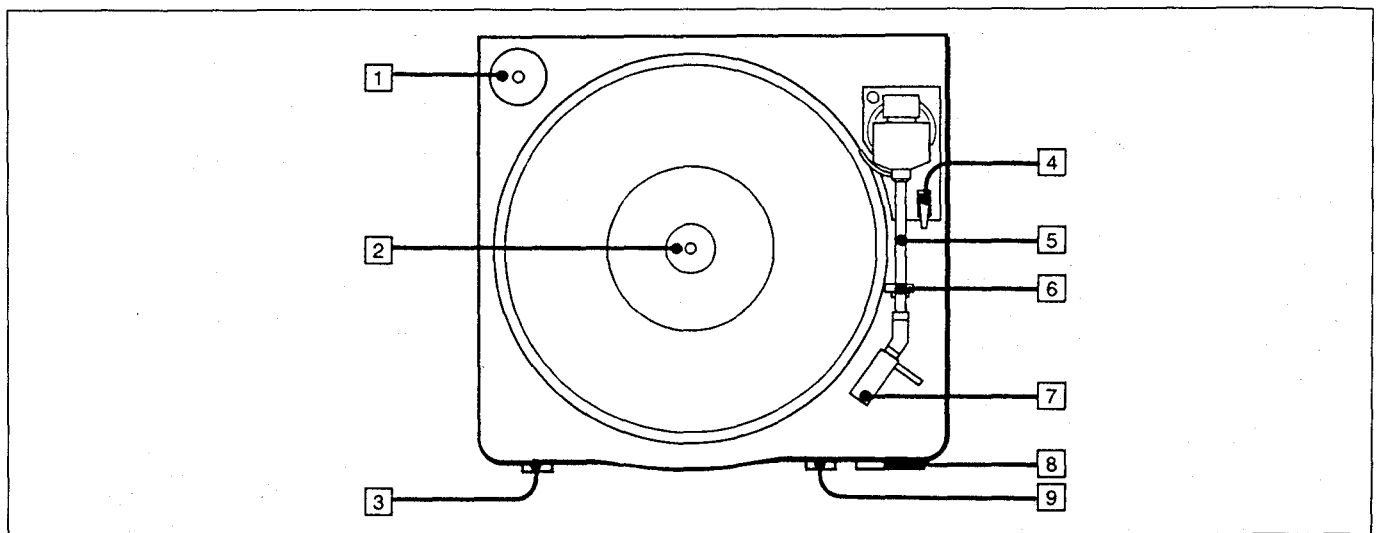
### REPAIRING PRECAUTION (PS-LX52P only)

#### [To supply B+ voltage]

The power of this unit is fed from HST model. Because of this, connect the regulated power supply as illustrated right when this unit alone operates.

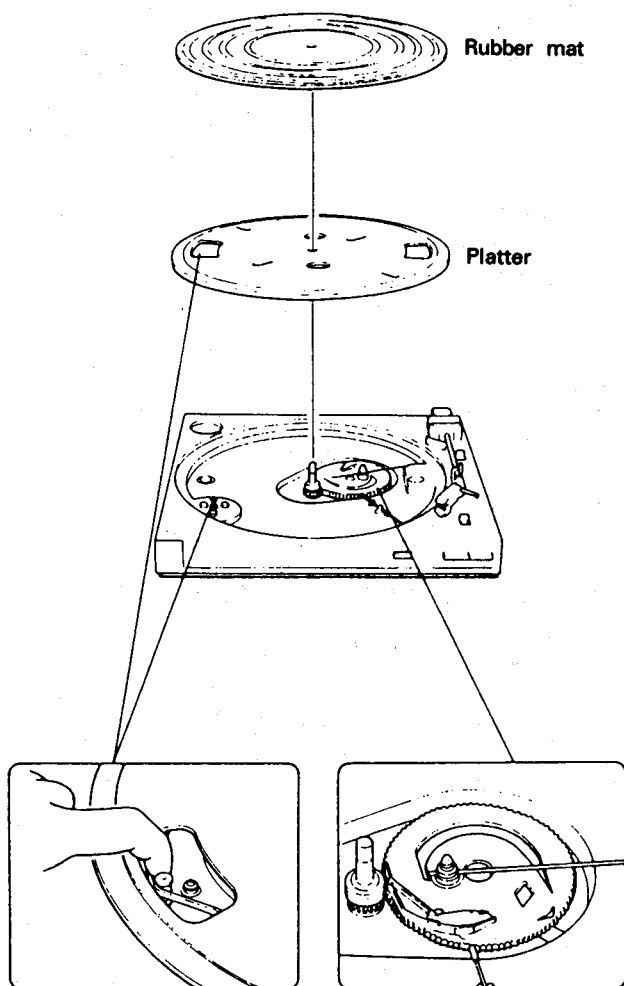


### LOCATION OF CONTROLS



- 1 45-rpm adaptor
- 2 Center spindle
- 3 POWER switch (PS-LX52 only)
- 4 Cueing lever
- 5 Tonearm
- 6 Arm rest
- 7 Cartridge
- 8 REJECT button
- 9 Speed selector

## TURNTABLE ASSEMBLY

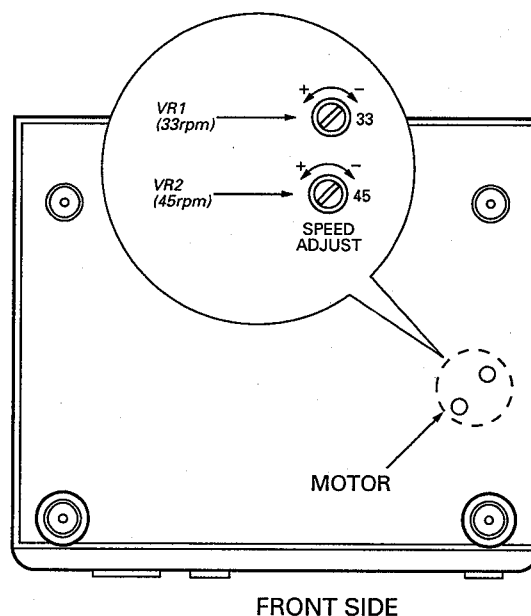


Hook the belt on the motor pulley.  
If the belt is removed from the platter, replace it with the glossy side outward.

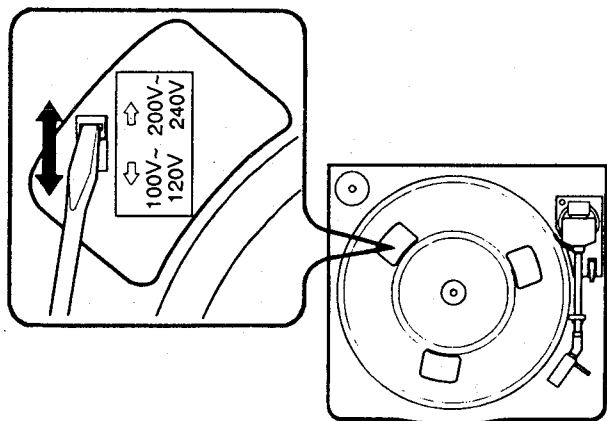
### Speed Adjustment

**Note:** Be sure to perform 45rpm adjustment before 33rpm.

1. Place a stroboscope board on the turntable sheet.  
Press the **START** button.  
Adjust **VR2** so that the striped pattern of stroboscope board is stationary.
2. Set the **SPEED** switch to 45.  
Adjust **VR1** in the same way.



FRONT SIDE



### Setting the Voltage Selector

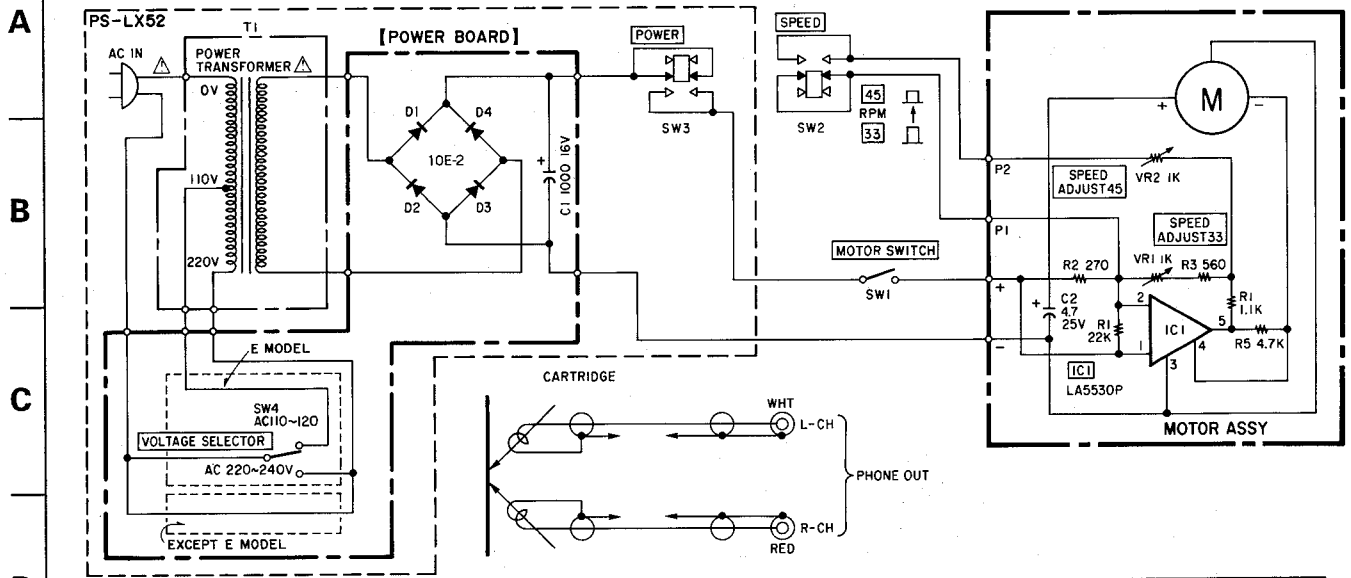
PS-LX52 (E, Saudi Arabia, PX, Singapore, Malaysia model)

**For customers of the model equipped with the voltage selector**

Check to confirm that the voltage selector is set to the local power line voltage. If not, set the voltage selector to the correct position before connecting the AC power cord to a wall outlet.



## SCHEMATIC DIAGRAM



## NOTE:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ ;  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $1/4\text{W}$  or less unless otherwise specified.

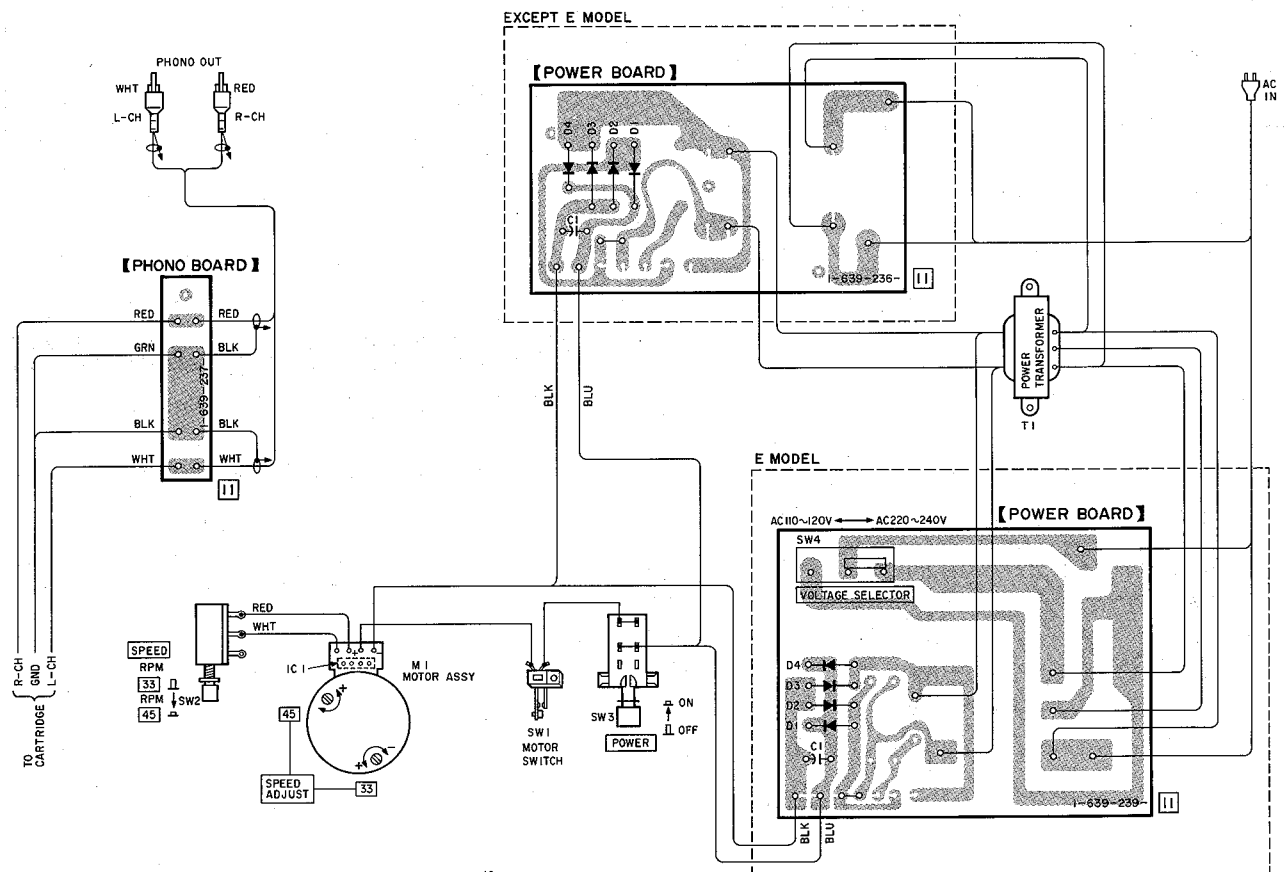
## Switches:

Ref.No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

## WIRING DIAGRAM



## A



## D

- # E

- | Ref.No. | Switch | Position |
|---------|--------|----------|
| SW1     | MOTOR  | OFF      |
| SW2     | SPEED  | 33       |
| SW3     | POWER  | OFF      |

# E

# E



## EXPLODED VIEW [PS-LX52]

### NOTE:

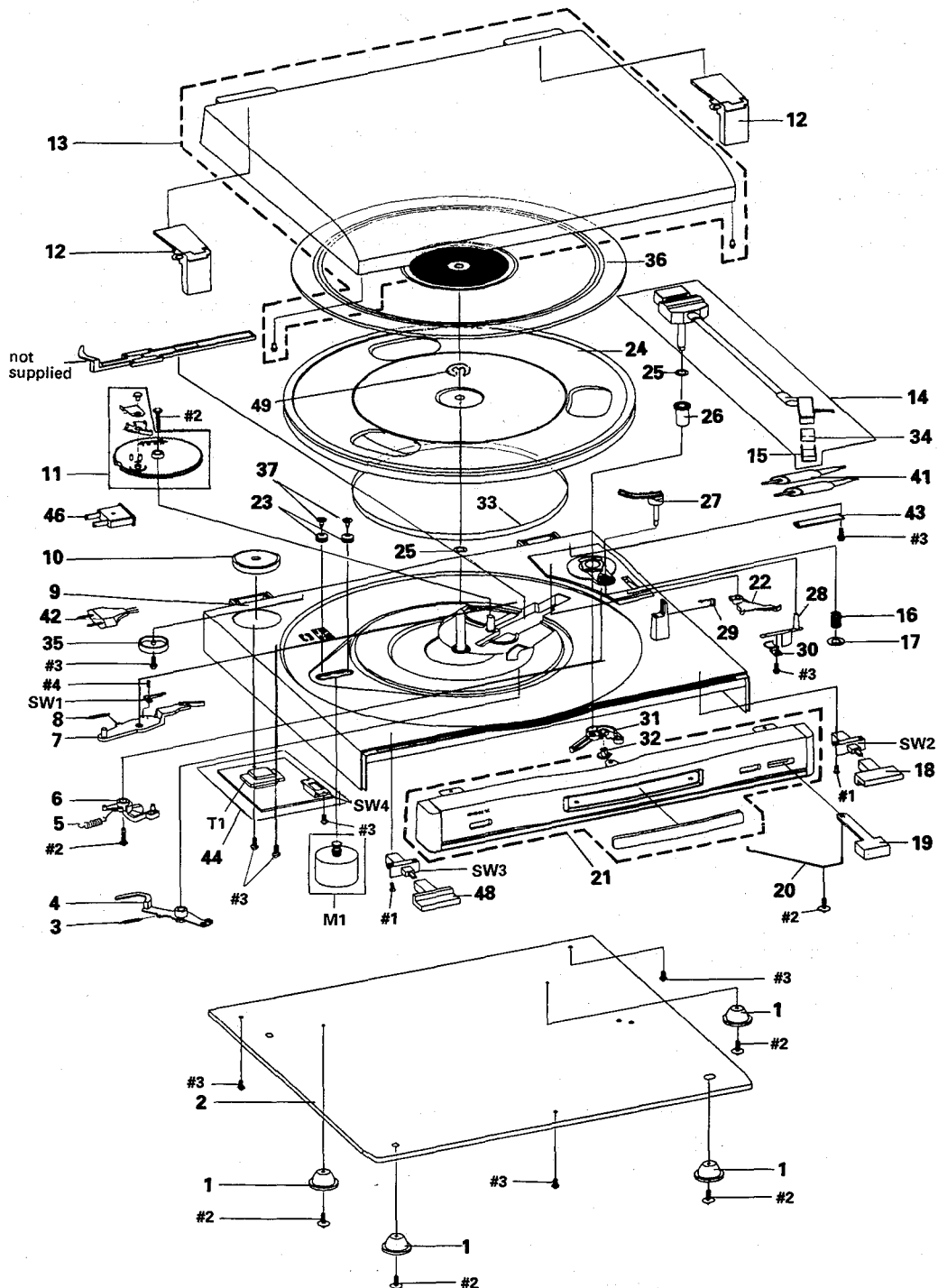
- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Screw(# mark) list is given in the last of this parts list.

The components identified by mark  $\triangle$  or dotted line with mark  $\triangle$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une marque  $\triangle$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

- PX, Saudi Arabia, Singapore and Malaysia models are identical to E model.
- Italian, EE, and CIS models are identical to AEP model.
- AUS: Australian model
- EE: East European model



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	4-950-472-01	FOOT		28	4-950-440-01	LEVER-CUEING	
* 2	4-958-328-01	COVER-BOTTOM		29	4-950-439-01	LOCKER-ARM	
3	4-950-453-01	SPRING-REJECT		30	4-950-441-01	BRACKET-CUEING	
4	4-950-452-01	LEVER-REJECT		31	4-950-450-01	ARM-FEED	
5	4-950-455-01	SPRING-ELEVATOR		32	4-950-451-01	CAM-ADJUST	
6	4-950-454-01	ELEVATOR		33	4-950-434-01	BELT	
7	4-950-463-01	ARM-CONTROL		34	4-944-756-01	CARTRIDGE (AT-3600LAX)	
8	4-950-464-01	SPRING-CONTROL ARM		* 35	4-950-514-01	WASHER CODE	
* 9	4-950-431-01	CABINET-UPPER		36	A-4660-142-A	RUBBER ASSY, SHEET	
10	4-950-467-01	ADAPTOR-45RPM		37	4-950-469-01	SCREW-SETTING MOTOR	
11	A-4660-140-A	GEAR ASSY, RING		41	1-590-871-11	CORD, CONNECTION (3 CORE)	
12	4-950-432-01	HINGE		△42	1-590-836-11	CORD, POWER (E)	
13	A-4660-138-A	COVER ASSY, DUST		△42	1-551-294-11	CORD, POWER (AEP)	
14	A-4660-384-A	ARM ASSY, TONE		△42	1-696-382-11	CORD, POWER (US, Canadian)	
15	4-944-756-01	STYLUS (ND-155G)		△42	1-696-848-11	CORD, POWER (AUS)	
16	4-950-442-01	SPRING-ELEVATION		43	1-639-237-11	PHONE BOARD	
17	4-950-444-01	WASHER-C/S		44	1-639-239-11	POWER BOARD (E)	
18	4-956-873-01	BUTTON-SPEED		44	1-639-236-11	POWER BOARD (EXCEPT E)	
19	4-956-872-01	BUTTON-REJECT		△46	1-693-159-11	ADAPTER, AC (E)	
20	4-950-448-01	LINK-REJECT		48	4-956-874-01	BUTTON POWER	
21	A-4660-361-A	PANEL (G) ASSY, FRONT		49	4-953-059-01	E RING	
22	4-953-060-01	LEVER, SWITCH		M1	A-4660-141-A	MOTOR ASSY	
23	4-950-470-01	CUSHION-MOTOR		SW1	1-572-746-11	SWITCH, LEAF	
24	4-950-433-01	PLATTER		SW2	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)	
25	4-950-435-01	SPACER		△SW3	1-572-744-11	SWITCH, PUSH (POWER)	
26	4-950-436-01	BUSHING-TONE ARM		△SW4	1-572-745-11	VOLTAGE SELECTOR (E)	
27	4-950-437-01	ARM-ELEVATION		△T1	1-450-508-11	TRANSFORMER, POWER	

## ELECTRICAL PARTS LIST [PS-LX52]

### NOTE:

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- CAPACITORS  
MF:  $\mu$ F, PF:  $\mu$ F
- PX, Saudi Arabia, Singapore and Malaysia models are identical to E model.
- Italian, EE, and CIS models are identical to AEP model.
- AUS: Australian model
- EE: East European model

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
	1-639-239-11	POWER BOARD (E)		△SW4	1-572-745-11	VOLTAGE SELECTOR (E)	
	1-639-236-11	POWER BOARD (EXCEPT E)		△T1	1-450-508-11	TRANSFORMER, POWER	
	*****			*****			
	< CAPACITOR >					ACCESSORIES & PACKING MATERIALS	
						*****	
C1	1-124-360-00	ELECT	1000 $\mu$ F 20% 16V	*	4-947-532-01	SNOW BOX (L)	
				*	4-947-533-01	SNOW BOX (R)	
				*	4-956-071-01	INDIVIDUAL CARTON	
					3-756-211-11	MANUAL, INSTRUCTION (English, French, Spanish, Portuguese) (AEP, Canadian)	
D1-4	8-719-200-02	DIODE	10E-2		3-756-211-21	MANUAL, INSTRUCTION (English) (US)	
*****					3-756-211-41	MANUAL, INSTRUCTION (German, Dutch, Swedish, Italian) (AEP)	
		MISCELLANEOUS			3-756-211-51	MANUAL, INSTRUCTION (English, French, Spanish, Chinese) (E, AUS)	
		*****			3-756-211-61	MANUAL, INSTRUCTION (English, German, Polish, Russian) (EE, CIS)	
41	1-590-871-11	CORD, CONNECTION (3 CORE)		*****			
△42	1-590-836-11	CORD, POWER (E)				HARDWARE LIST	
△42	1-551-294-11	CORD, POWER (AEP)		#1	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT	
△42	1-696-382-11	CORD, POWER (US, Canadian)		#2	7-685-903-21	SCREW +PTPHW 3X8 TYPE2	
△42	1-696-848-11	CORD, POWER (AUS)		#3	7-685-546-19	SCREW	
43	1-639-237-11	PHONE BOARD		#4	7-685-104-11	SCREW +P 2X6 TYPE2 NON-SLIT	
△46	1-693-159-11	ADAPTER, AC (E)					
SW1	1-572-746-11	SWITCH, LEAF					
SW2	1-572-744-11	SWITCH, PUSH (2 KEY) (SPEED)					
△SW3	1-572-744-11	SWITCH, PUSH (POWER)					

# EXPLODED VIEW [PS-LX52P]

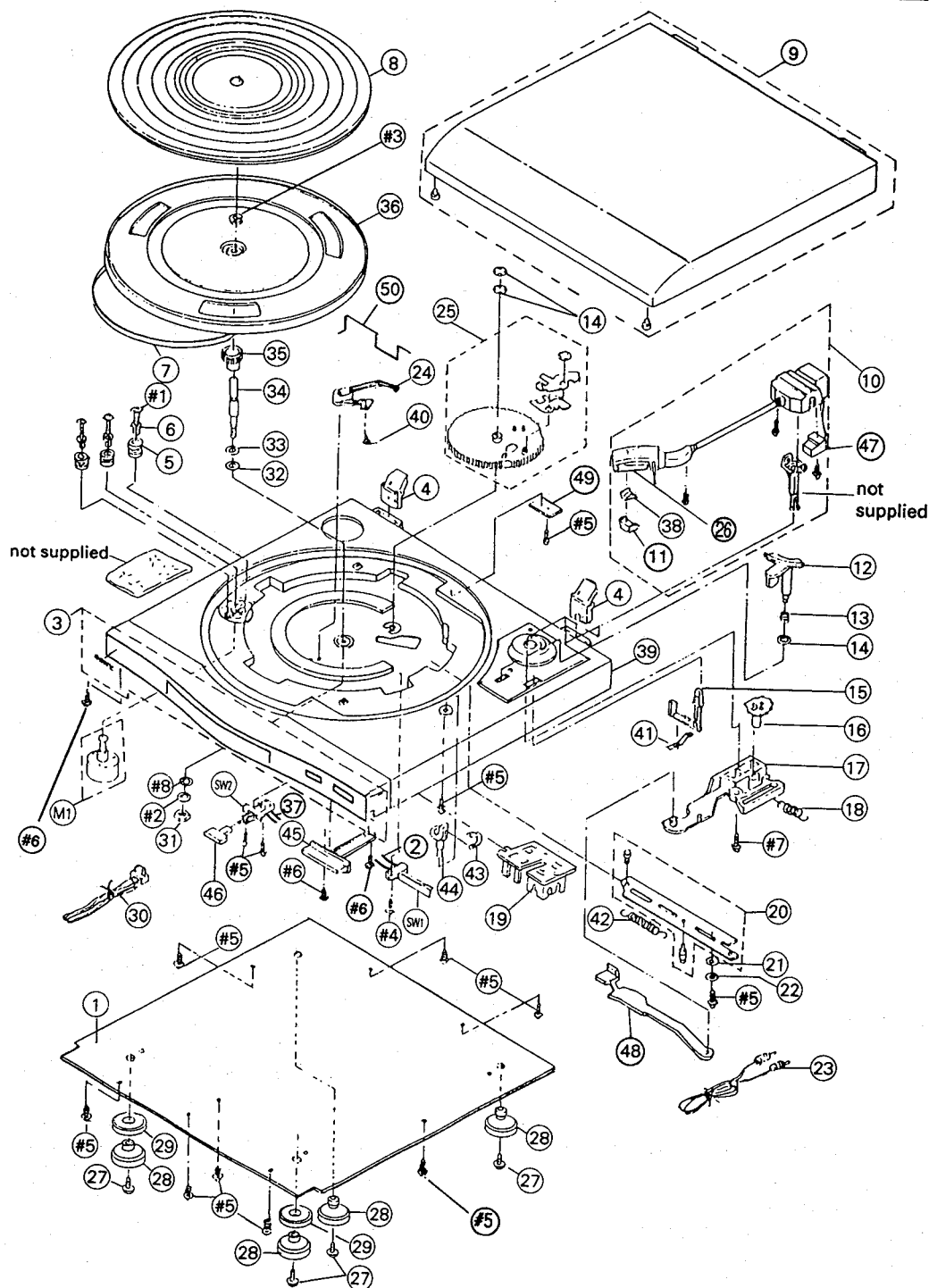
## NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- The construction parts of an assembled part are indicated with a collation number in the remark column.

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

- Screw(# mark) list is given in the last of this parts list.

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety.  
Replace only with part number specified.



Ref. No.	Part No.	Description
1	4-950-488-01	BOTTOM BOARD
2	1-696-144-11	WIRE (45) RED
3	A-4660-303-A	PANEL (G) ASSY, FRONT
4	4-947-476-01	HINGE
5	4-947-505-01	CUSHION, MOTOR

Ref. No.	Part No.	Description
6	4-947-504-01	COLLAR
7	4-947-503-01	BELT
8	A-4674-087-A	TURN TABLE MAT ASSY
9	A-4604-946-A	DUST COVER ASSY

Remarks

## ELECTRICAL PARTS LIST (PS-LX52P)

- -XX, -X mean standardized parts, so they may have some difference from the original one.
- Items marked "X" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

## HARDWARE LIST

#1 7-621-773-87 SCREW +B 2. 6X10  
#2 7-623-210-22 SW4, TYPE 2  
#3 7-624-110-04 STOP RING 6.0, TYPE-E  
#4 7-685-105-19 SCREW +P 2X8 TYPE 2 NON-SLIT  
#5 7-685-647-79 SCREW +BVTP 3X10 TYPE 2 IT-3  
  
#6 7-685-646-79 SCREW +BVTP 3X8 TYPE 2 IT-3  
#7 7-685-645-79 SCREW +BVTP 3X6 TYPE 2 IT-3  
#8 7-688-005-01 W5. SMALL



# HTC-D209/D309

## SERVICE MANUAL

AEP Model  
UK Model  
E Model  
Australian Model



HTC-D209 is the compact disc deck in LBT-A27CD / A27CDK / D209CD.  
HTC-D309 is the compact disc deck in LBT-A37CD / A37CDK / D309CD.

Photo: HTC-D209

### SPECIFICATIONS

#### Cassette deck

Recording system  
Frequency response

4-track 2-channel stereo  
DOLBY NR OFF  
With Type II cassette (Sony UX-S)  
40 Hz to 14 kHz ( $\pm 3$  dB)  
With Type I cassette (Sony HF-S)  
40 Hz to 13 kHz ( $\pm 3$  dB)  
W.PEAK  $\pm 0.2\%$  (DIN)

Wow and flutter

#### Compact disc player

Laser  
Laser output

Semiconductor laser ( $\lambda = 780$  nm)  
Max.  $44.6 \mu\text{W}^*$   
\* This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.


Frequency response  
Signal-to-noise ratio  
Dynamic range  
Harmonic distortion  
Channel separation

2 Hz to 20 kHz  $\pm 0.5$  dB  
More than 93 dB  
More than 90 dB  
Less than 0.008% (1 kHz)  
More than 90 dB (1 kHz)

Mass  
Dimensions

Approx. 5.1 kg  
Approx. 355  $\times$  225  $\times$  305 mm  
(w/h/d, including projections)

CD Section	Model Name Using Similar Mechanism	HCD-D109
	Base Unit Name	BU-5BD1
DECK Section	Model Name Using Similar Mechanism	HCD-H170/H170K /H700
	Tape Transport Mechanism Type	DECK A TCM-190RA12CL
		DECK B TCM-190RB22CL

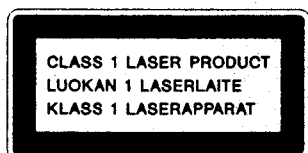
Dolby noise reduction manufactured under license from  
Dolby Laboratories Licensing Corporation.  
"DOLBY" and the double-D symbol  are trademarks of  
Dolby Laboratories Licensing Corporation.



COMPACT DISC DECK  
**SONY**<sup>®</sup>

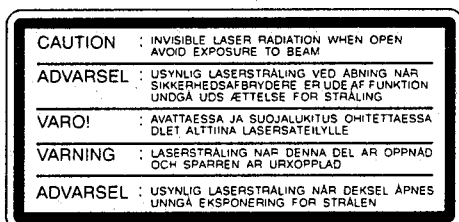


This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the rear exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

The following caution label is located inside the unit.



#### NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

#### NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe more than 30 cm away from the objective lens.

#### SAFETY-RELATED COMPONENT WARNING!!

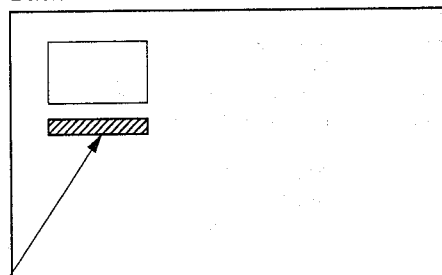
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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## MODEL IDENTIFICATION

### Back Panel



- 4-955-819-01: HTC-D209 AEP, UK, Italian, Germany Mdels.
- 4-955-819-11: HTC-D209 E, East European, Malaysia, Singapore Models.
- 4-955-819-21: HTC-D209 Saudi Arabia, Australian Models.
- 4-955-819-31: HTC-D309 AEP, UK, Italian, Germany Models.
- 4-955-819-41: HTC-D309 E, East European, Malaysia, Singapore, CIS Models.
- 4-955-819-51: HTC-D309 Saudi Arabia, Australian Models.

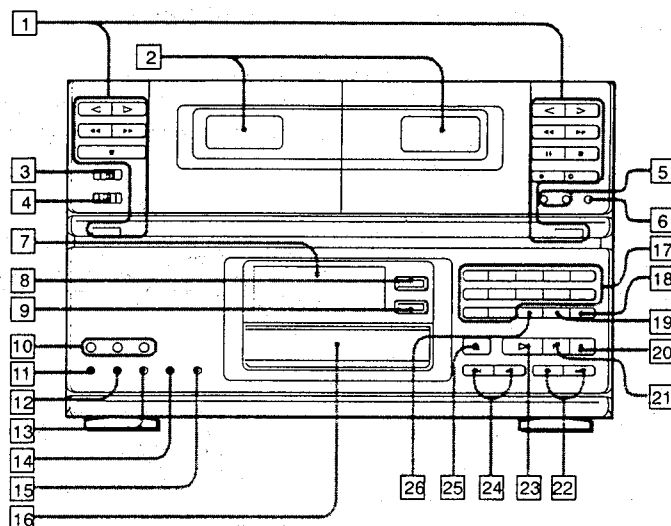
This section is extracted from instruction manual.

## SECTION 1 GENERAL

### Location of Controls

#### Cassette Deck

- 1 Tape operation buttons
  - ◀◀ Leftward fast winding/AMS\*
  - ▶▶ Rightward fast winding/AMS\*
  - ▶ Forward play
  - ◀ Reverse play
  - Stop
  - ▲ EJECT
  - || PAUSE (deck B only)
  - REC MUTE (record muting) (deck B only)
  - REC (record) (deck B only)
- 2 Cassette holders
- 3 DOLBY NR (noise reduction) switch (32, 80)
- 4 DIRECTION MODE selector (28, 32, 38, 80)
- 5 DUBBING SPEED (HIGH/NORMAL) button (38, 40)
- 6 CD SYNCHRO button (80, 84)



#### Compact Disc Player

- 7 Display window
- 8 EDIT/TIME FADE button (86, 88, 94)
- 9 TIME SET button (86, 94)
- 10 PLAY MODE buttons
  - PROGRAM button (54)
  - SHUFFLE button (50, 52)
  - CONTINUE button (52)
- 11 MUSIC SCAN button (58)
- 12 A.SPACE/A.CUE (auto space/auto cue) button (48, 96)
- 13 TIME button (44)
- 14 REPEAT button (60)
- 15 FADER button (92)
- 16 Disc tray
- 17 Numeric buttons (46, 52)
- 18 CLEAR (program clear) button (56)
- 19 CHECK (program check) button (56)
- 20 ■ (stop) button (42)
- 21 || (pause) button (42)
- 22 ◀◀/▶▶ (manual search) buttons (46)
- 23 ▶ (play) button (42)
- 24 ◀◀/▶▶ (AMS\*) buttons (46)
- 25 OPEN/CLOSE ▲ button (42)
- 26 > 12 (over 12) button (46)

\* AMS is the abbreviation of Automatic Music Sensor.

## SECTION 2 ADJUSTMENTS

### 2-1. MECHANICAL ADJUSTMENTS

#### Precautions:

1. Clean the following parts with a denatured-alcoholmoistened swab;
 

record/playback/erase head	
pinch roller	rubber belts
capstan	idler
2. Demagnetize the record/playback head with a head demagnetizer.  
(Head demagnetizer do not approach for the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed in the rated power supply voltage unless otherwise noted.

#### Torque Measurement

Torque	Torque meter	Meter reading
FWD	CQ-102C	35 to 60g · cm (0.49 to 0.83 oz · inch)
FWD Back tension	CQ-102C	2 to 6g · cm (0.03 to 0.08 oz · inch)
REV	CQ-102RC	35 to 60g · cm (0.49 to 0.83 oz · inch)
REV Back tension	CQ-102RC	2 to 6g · cm (0.03 to 0.08 oz · inch)
FF, REW	CQ-201B	70 to 110g · cm (0.98 to 1.52 oz · inch)

### 2-2. ELECTRICAL ADJUSTMENTS

**0 dB=0.775 V (AF)**

#### Precautions:

#### CASSETTE DECK SECTION

1. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
2. Do not use a magnetized screwdriver for the adjustments.
3. After the adjustments, apply suitable locking compound to the parts adjusted.
4. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
5. The adjustments should be performed in the order given in this service manual. (As a general rule, playback circuit adjustment should be completed before performing recording circuit adjustment.)
6. The adjustments should be performed for both L-CH and R-CH.
  - Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch : OFF  
TAPE : TYPE I

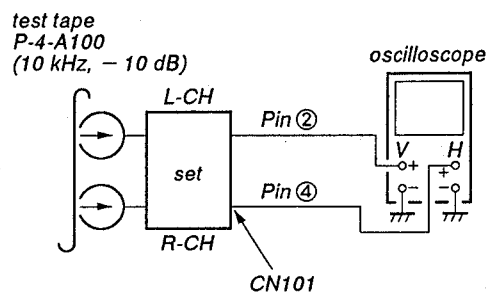
Type	Signal	Used for
P-4-A100	6.3kHz, -10dB	Azimuth Adjustment
P-4-L300	315Hz, 0dB	PB Level Adjustment
WS48B	3kHz, 0dB	Tape Speed Adjustment

#### Record/Playback Head Azimuth Adjustment

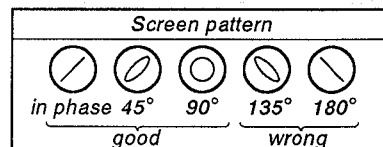
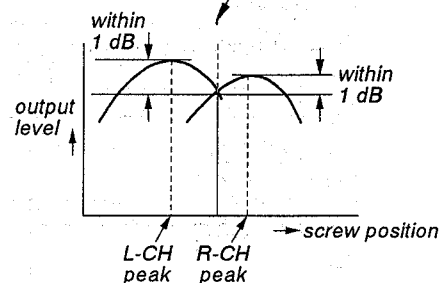
**Note :** Perform this adjustments for both decks.

#### Procedure :

1. Mode : FWD playback

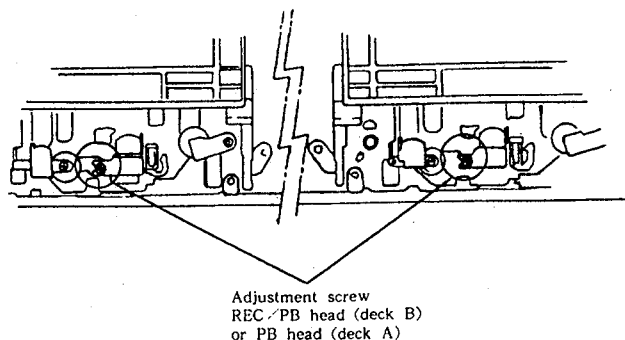


2. Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1 dB of peak.



3. After the adjustments, apply suitable locking compound to the parts adjusted.

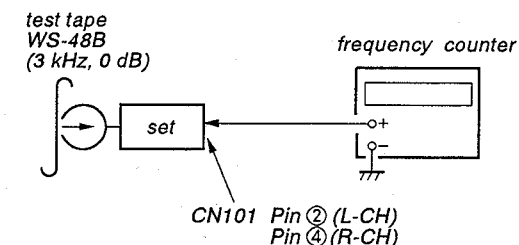
#### Adjustment Location :



## Tape Speed Adjustment. DECK A DECK B

### Procedure :

Mode : playback



### • High speed adjustment (Must be first Adjustment B deck)

1. Push HIGH speed button.
2. Adjust RV71 so that the frequency counter reads  $6,000 \pm 30 \text{ Hz}$ .

### • NORMAL speed adjustment

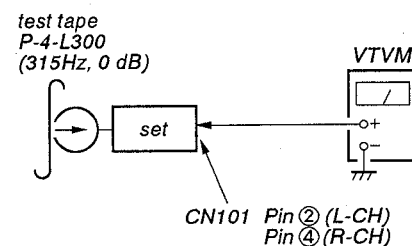
1. Push NORMAL speed button.
2. Adjust RV72 so that the frequency counter reads  $3,000 \pm 15 \text{ Hz}$ .

(See right for Adjusting Parts Location)

Frequency difference between deck A and deck B the beginning of the tape should be within 1%.

## Playback Level Adjustment DECK A DECK B

### Procedure :



Mode : FWD playback

DECK-A side RV11 (L-CH), RV21 (R-CH)

DECK-B side RV11 (L-CH), RV21 (R-CH)

so that the limits below are satisfied.

### Adjustable limits :

CN101 level :  $-7.7 \pm 0.5 \text{ dB}$  (0.301 - 0.338)

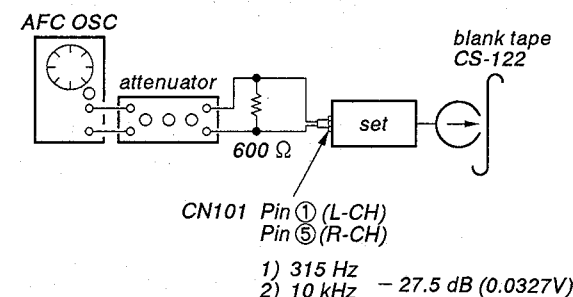
level difference between the channels : within 1.0dB

(See right for Adjusting Parts Location)

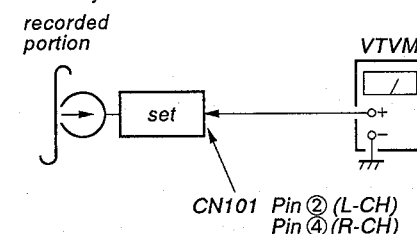
## Record BIAS Current Adjustment DECK B

### Procedure :

1. Mode : record



2. Mode : Playback



Playback the signal recorder in step 1.

Confirm that the 10kHz playback output is  $0 \pm 0.5 \text{ dB}$  relative to the 315Hz output. If necessary, adjust RV12 (L-CH), RV22 (R-CH) and repeat the steps given above.

(See right for Adjusting Parts Location)

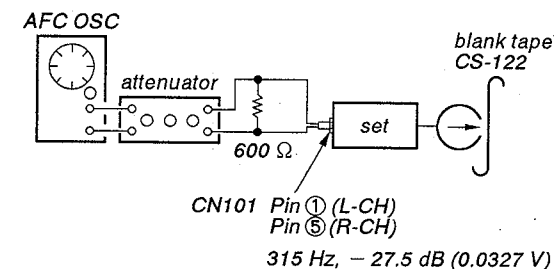
## Record Level Adjustment DECK B

### Setting :

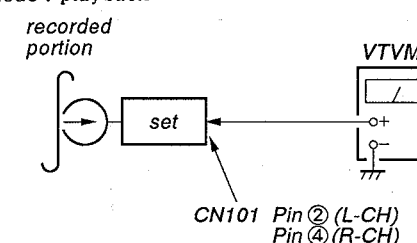
TAPE : TYPE I

### Procedure :

1. Mode : record



2. Mode : playback



3. Playback the signal recorded in step 1.

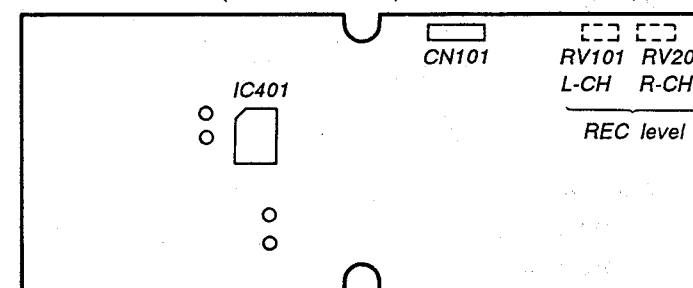
Confirm that the signal level is within the adjustment limits below. If necessary, adjust RV101 (L-CH), RV201 (R-CH) and repeat the step 1-3.

Adjustable limits :  $-27.5 \pm 0.5 \text{ dB}$  (0.0309 - 0.0346)

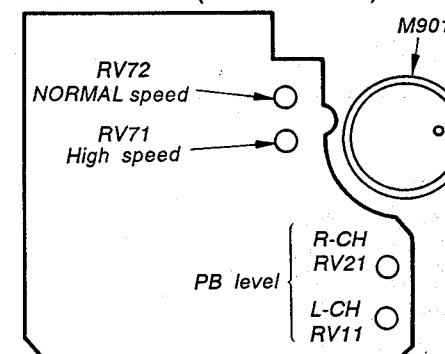
(See right for Adjusting Parts Location)

## • Adjusting Parts Location

### TC MAIN BOARD (Conductor Side)



### AUDIO BOARD (Conductor Side)

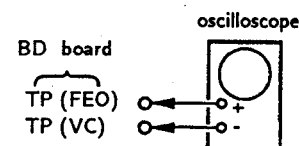


## CD SECTION

### Note :

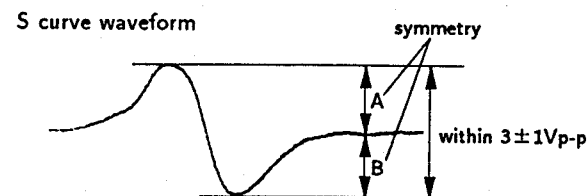
1. CD Block basically constructed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use the oscilloscope with more than  $10M\Omega$  impedance.
4. Clean an object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

### S Curve Check



#### Procedure :

1. Connect oscilloscope to test point TP (FEO) on BD board.
2. Connect between test point TP (FES) and TP (VC) by lead wire.
3. Turned Power switch on and actuate the focus serch. (actuate the focus serch when disc table is moving in and out.)
4. Check the oscilloscope waveform (S curve) is symmetrical between A and B. And confirm peak to peak level within  $3\pm 1V_{p-p}$ .

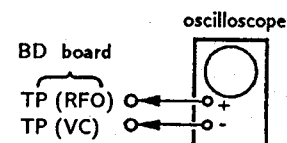


5. After check, remove the lead wire connected in step 2.

**Note :** • Try to measure several times to make sure that the ratio of A : B or B : A is more than 10 : 7.

• Take sweep time as long as possible and light up the brightness to obtain best waveform.

### RF Level Check

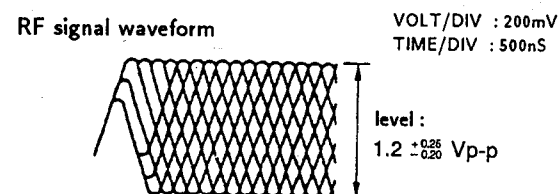


#### Procedure :

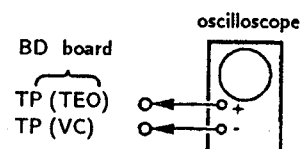
1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power switch on.
3. Put disc (YEDS-18) in and playback.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

#### Note :

Clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

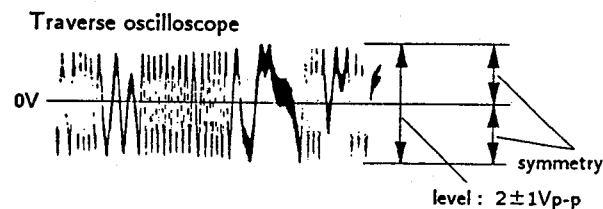


### E-F Balance Check



#### Procedure :

1. Connect test point TP (ADJ) to ground and TP (TES) to TP (VC) with lead wire.
2. Connect oscilloscope to test point TP (TEO) on BD board.
3. Turn Power switch on.
4. Put disc (YEDS-18) in and playback.
5. Confirm that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V, and check this level.

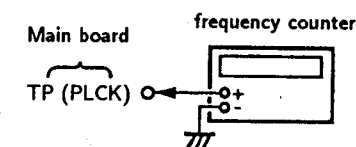


6. Remove the lead wire connected in step 1.

### RF PLL Free-run Frequency Check

#### Procedure :

1. Connect frequency counter to test point (PLCK) with lead wire.



2. Turn Power switch on.
3. Confirm that reading on frequency counter is 3218MHz.

### Focus/Tracking Gain

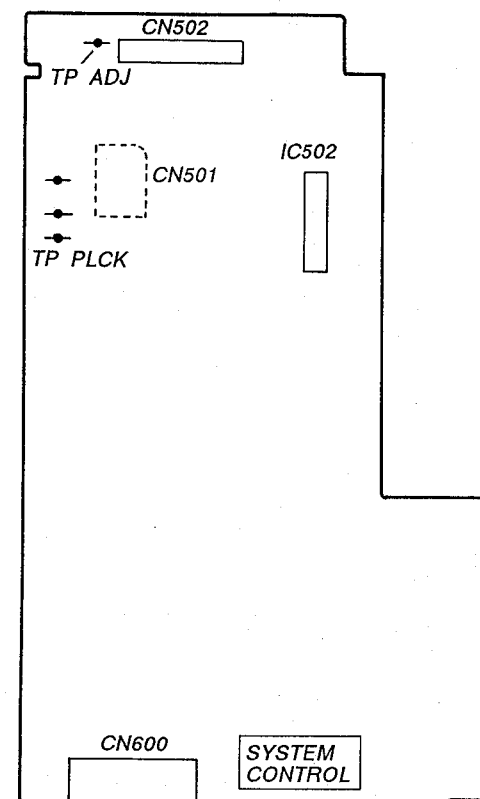
This gain has a margin, so even if it is slightly off. There is no problem.

Therefore, do not perform, this adjustment.

Please note that it should be fixed to mechanical center position when you moved and do not know original position.

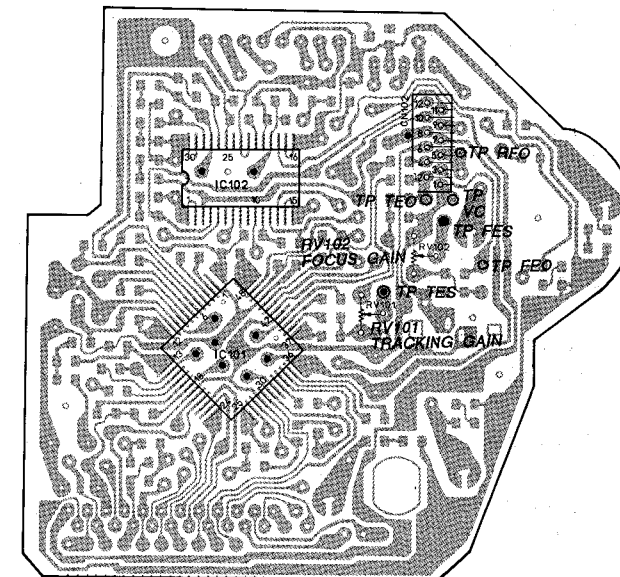
### Adjustment Location ;

#### CD MAIN BOARD (Component Side)



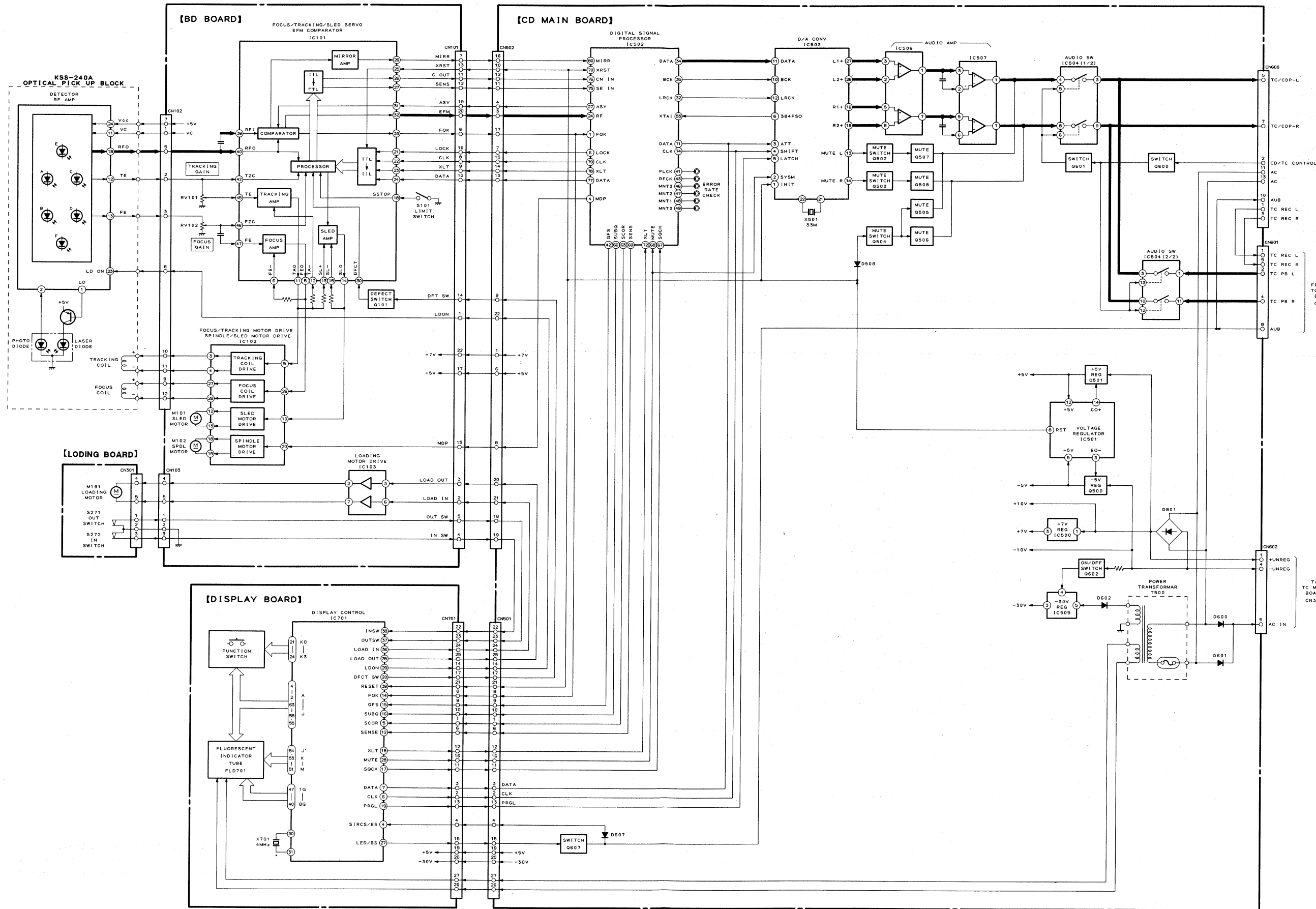
### Adjustment Locations : [BD board]

— conductor side —



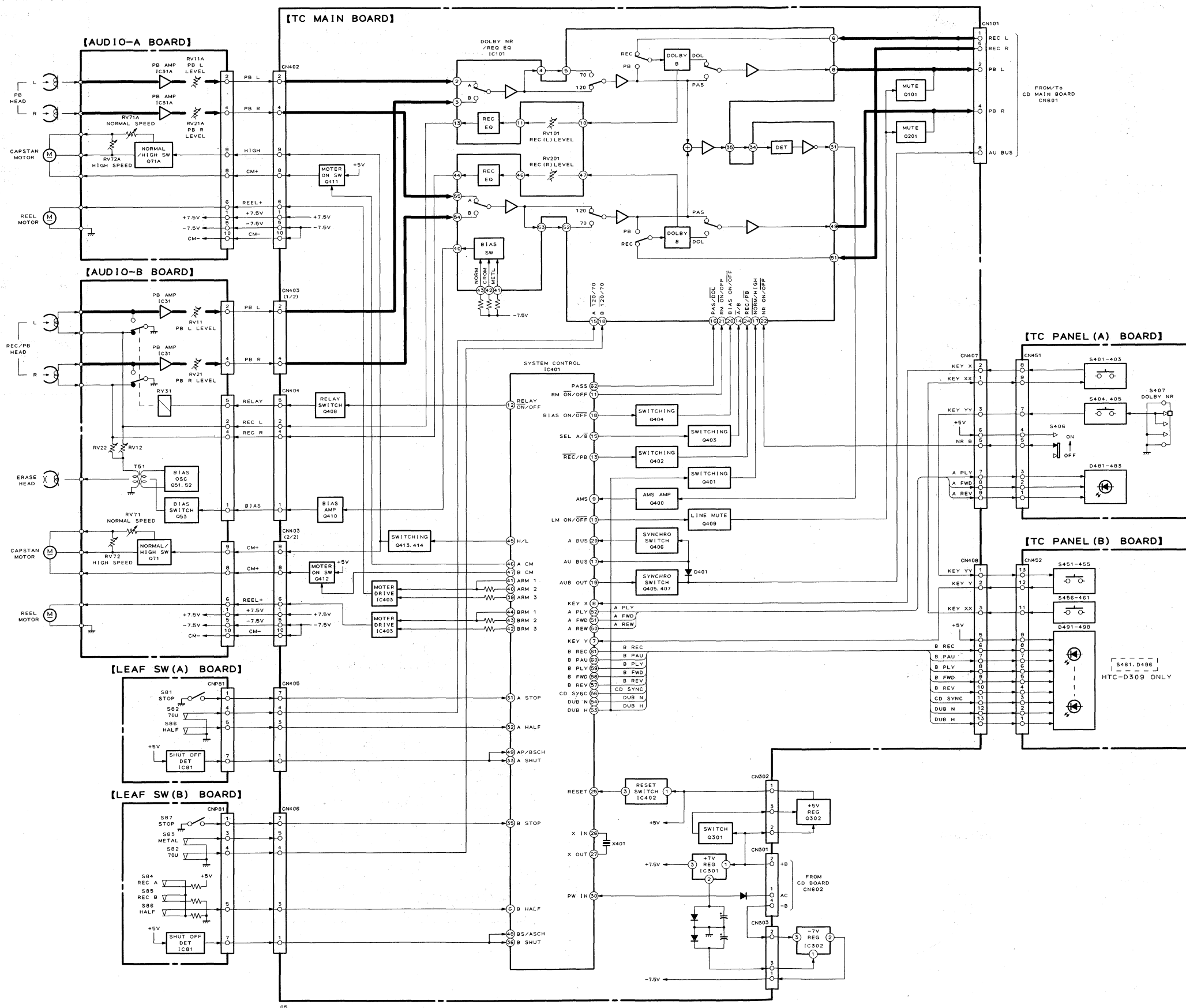
## SECTION 3 DIAGRAMS

3-1. CD SECTION BLOCK DIAGRAM



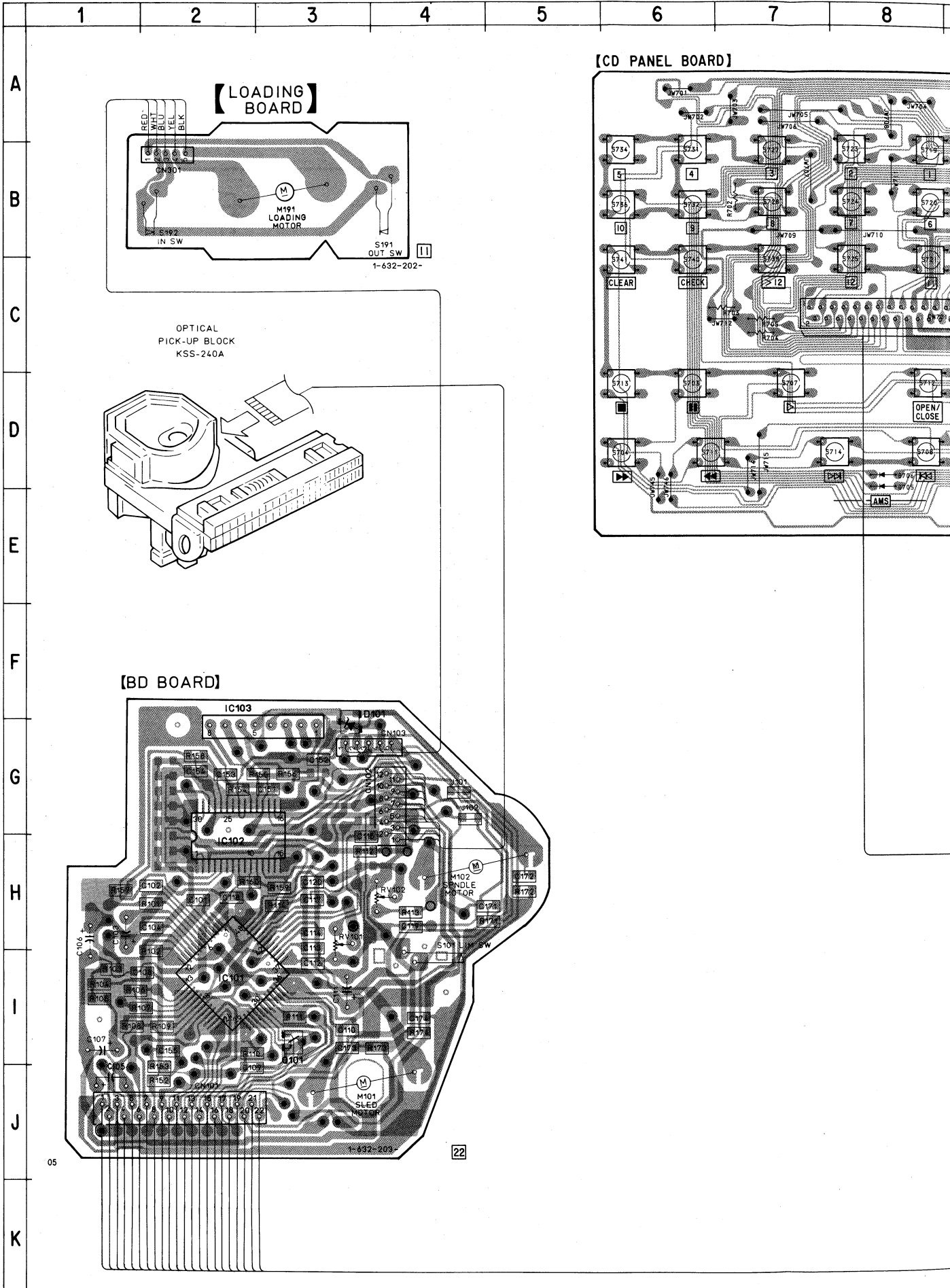
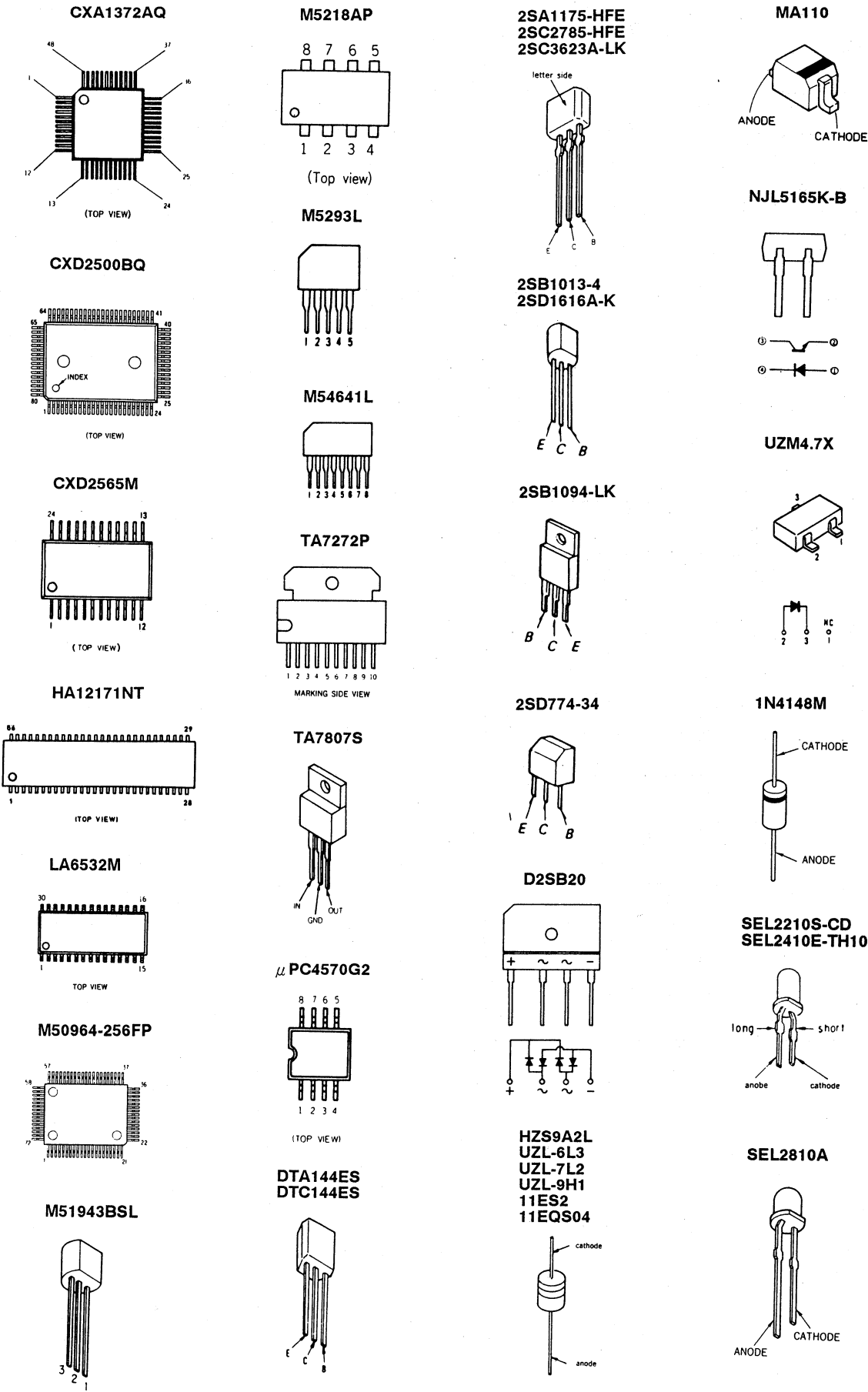
3-2. CASSETT

## 3-2. CASSETTE DECK SECTION BLOCK DIAGRAM



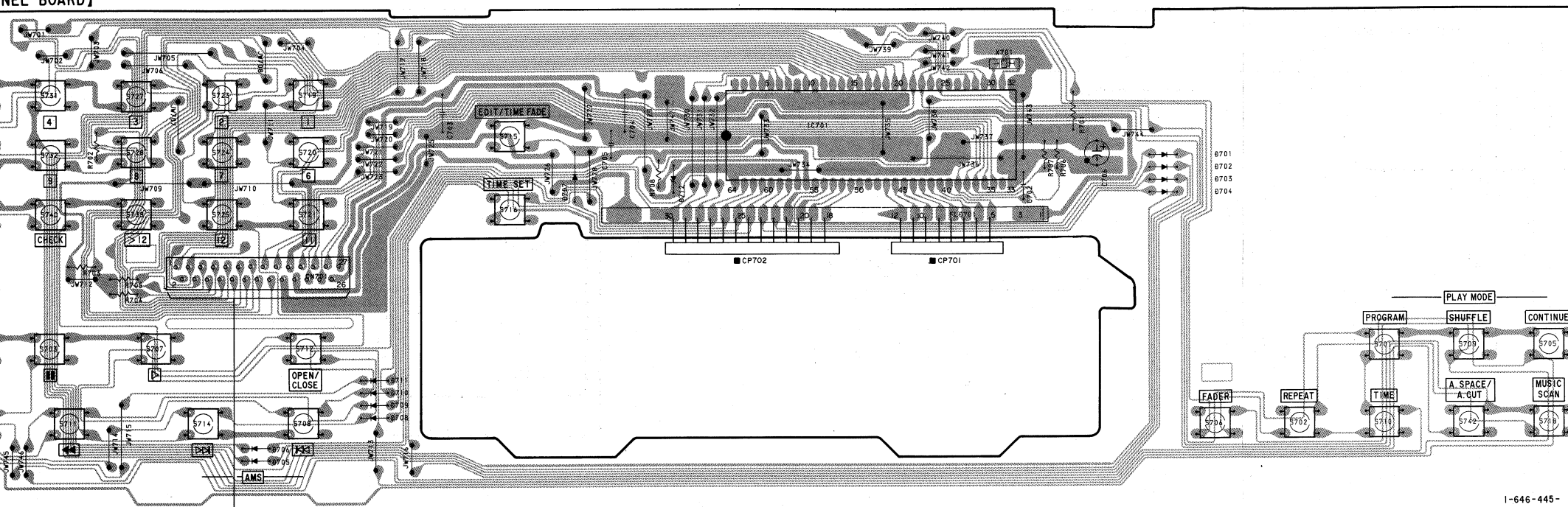
3-3. CD SECTION PRINTED WIRING BOARDS

• Semiconductor Lead Layouts





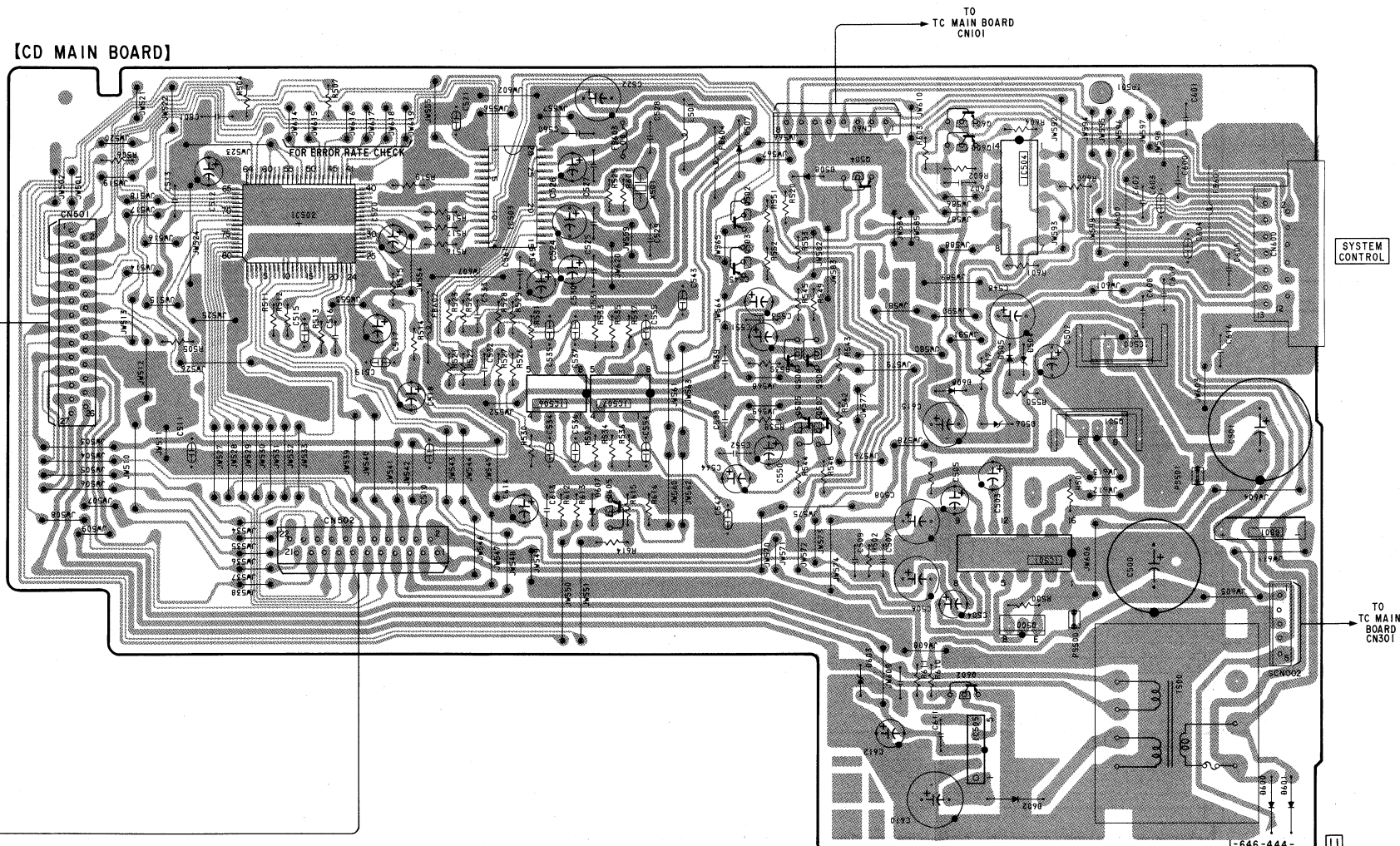
NEL BOARD]



1-646-445-

11

[CD MAIN BOARD]



1-646-444-

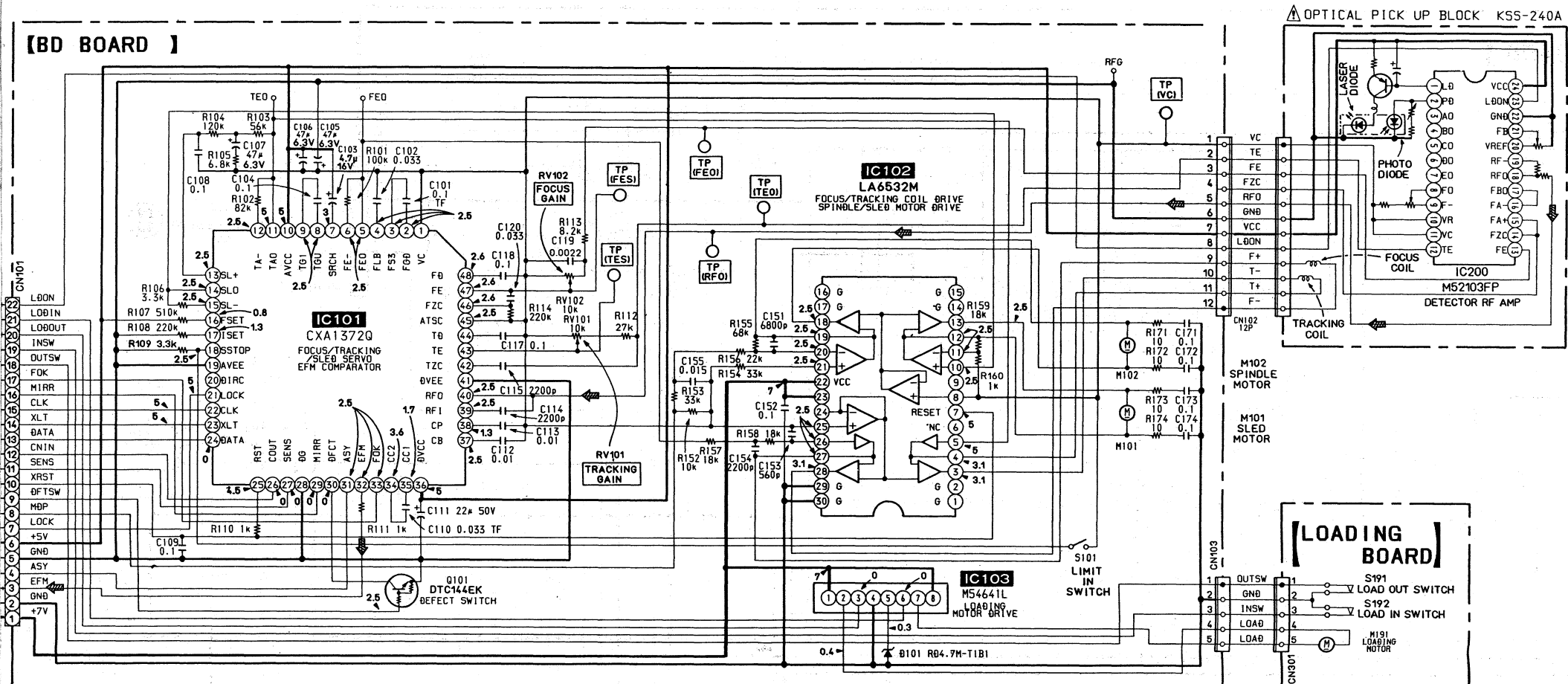
11

Note on Printed Wiring Board:

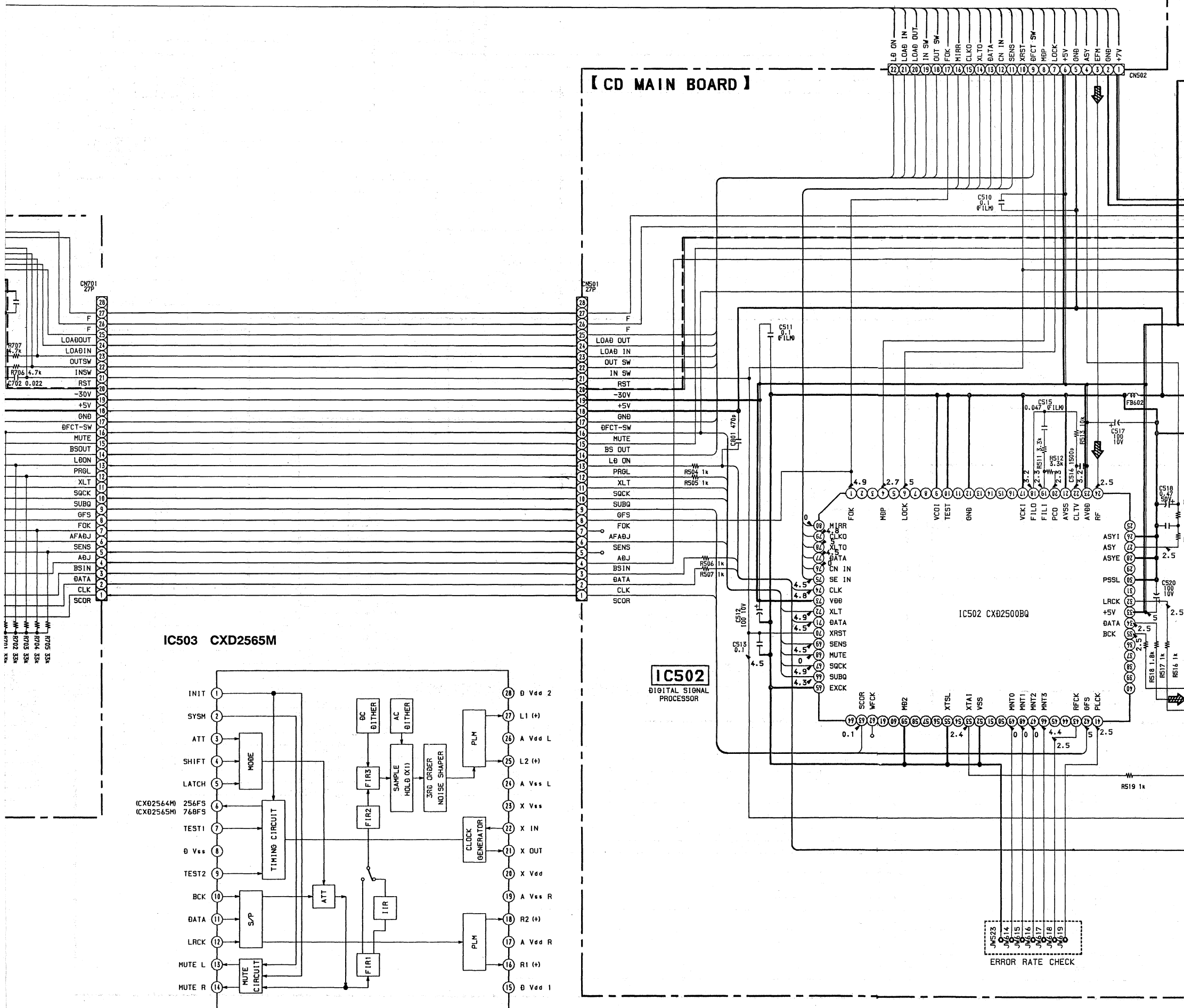
- ○ : parts extracted from the component side.
- : Pattern from the side which enables seeing.
- : Pattern of the rear side.



【BD BOARD】



【CD MAIN BOARD】





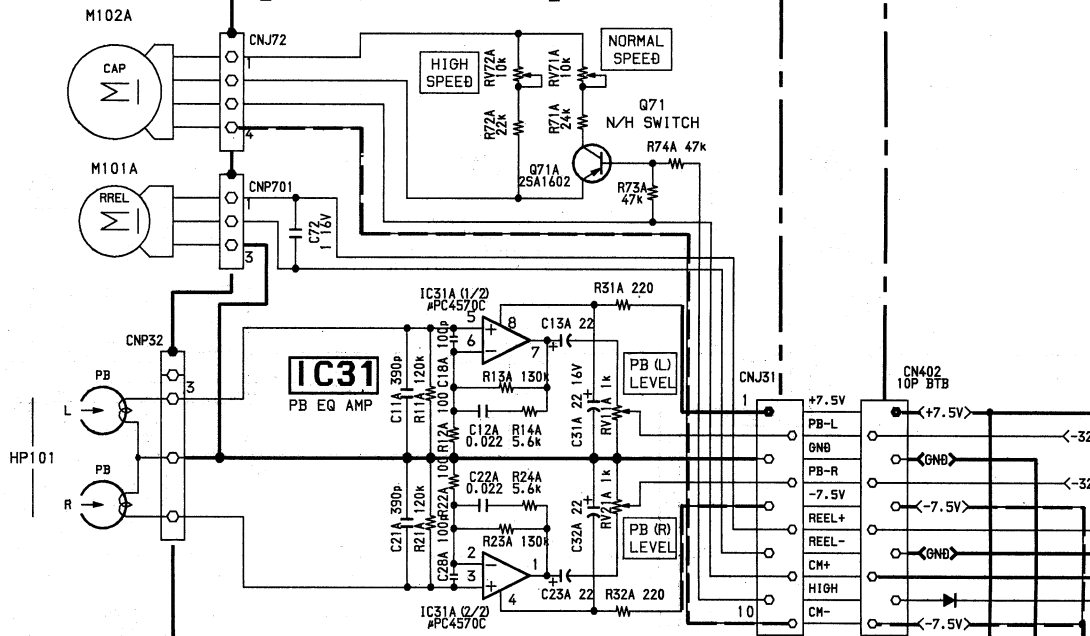




A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P

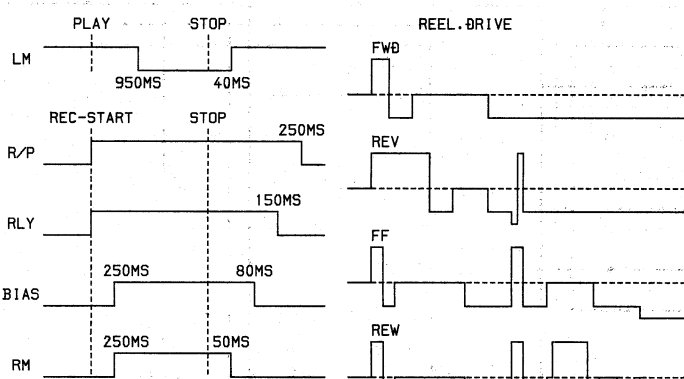
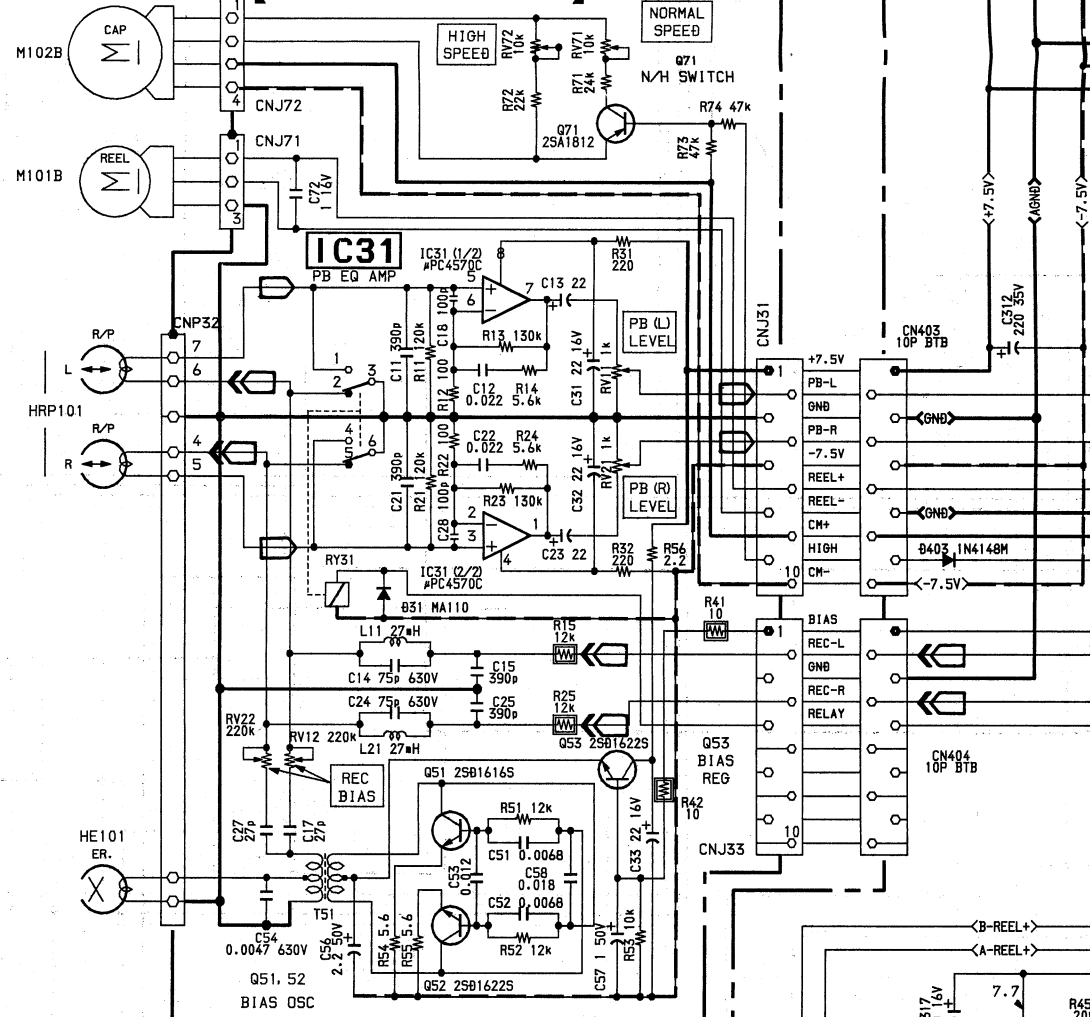
DECK-A

【AUDIO BOARD】

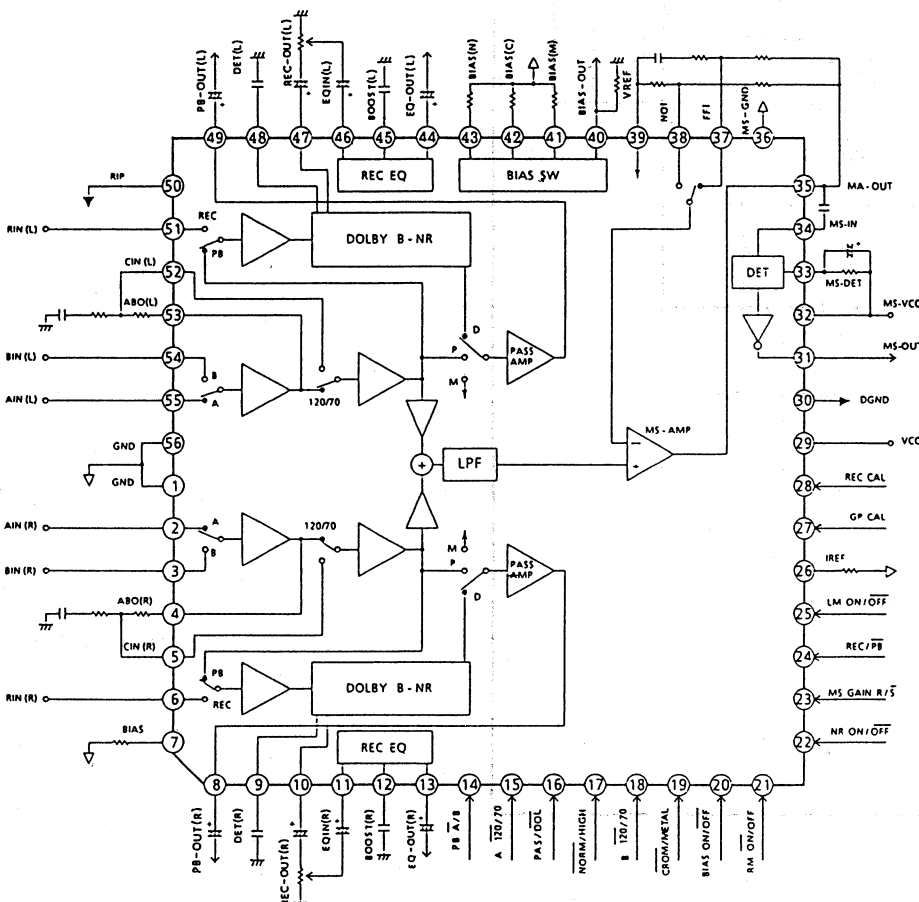


DECK-B

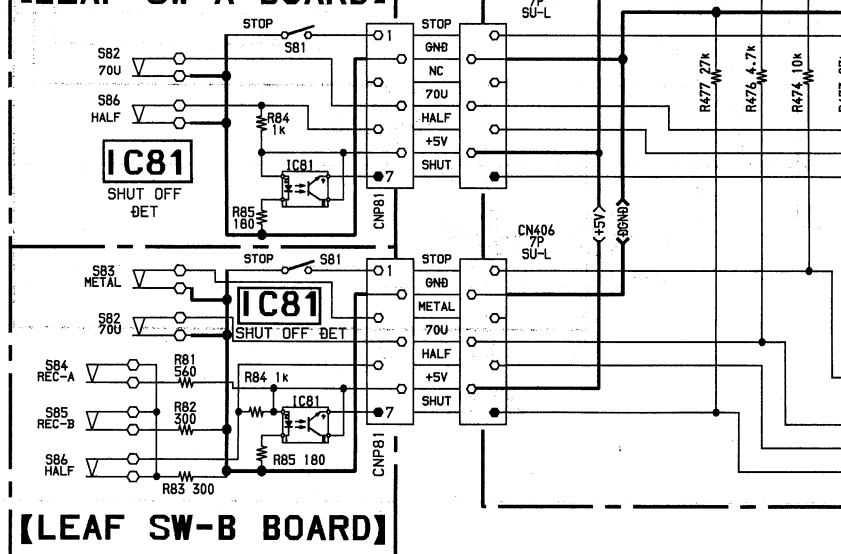
【AUDIO-B BOARD】



IC101 HA12171NT



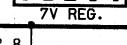
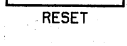
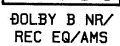
DECK-A 【LEAF SW-A BOARD】

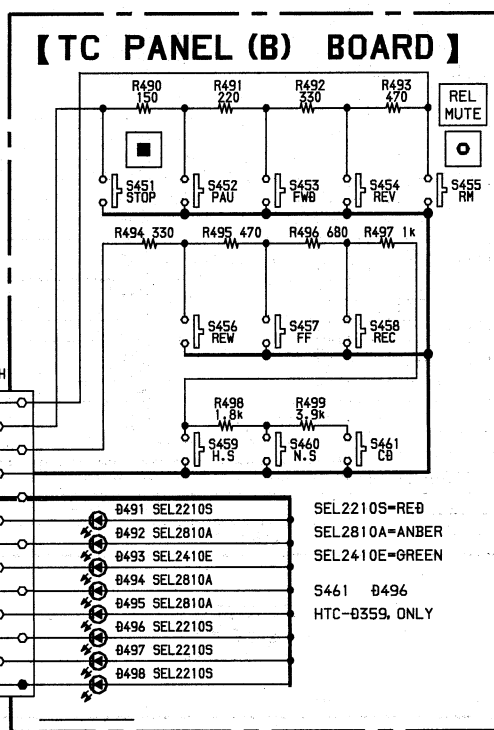


DECK-B

【LEAF SW-B BOARD】

B. HALF	
TAPE. OUT	5.5V
TAPE. IN	2.3V
NO. TUB. A	1.1
NO. TUB. B	4.3
NO. TUB. AB	3.1



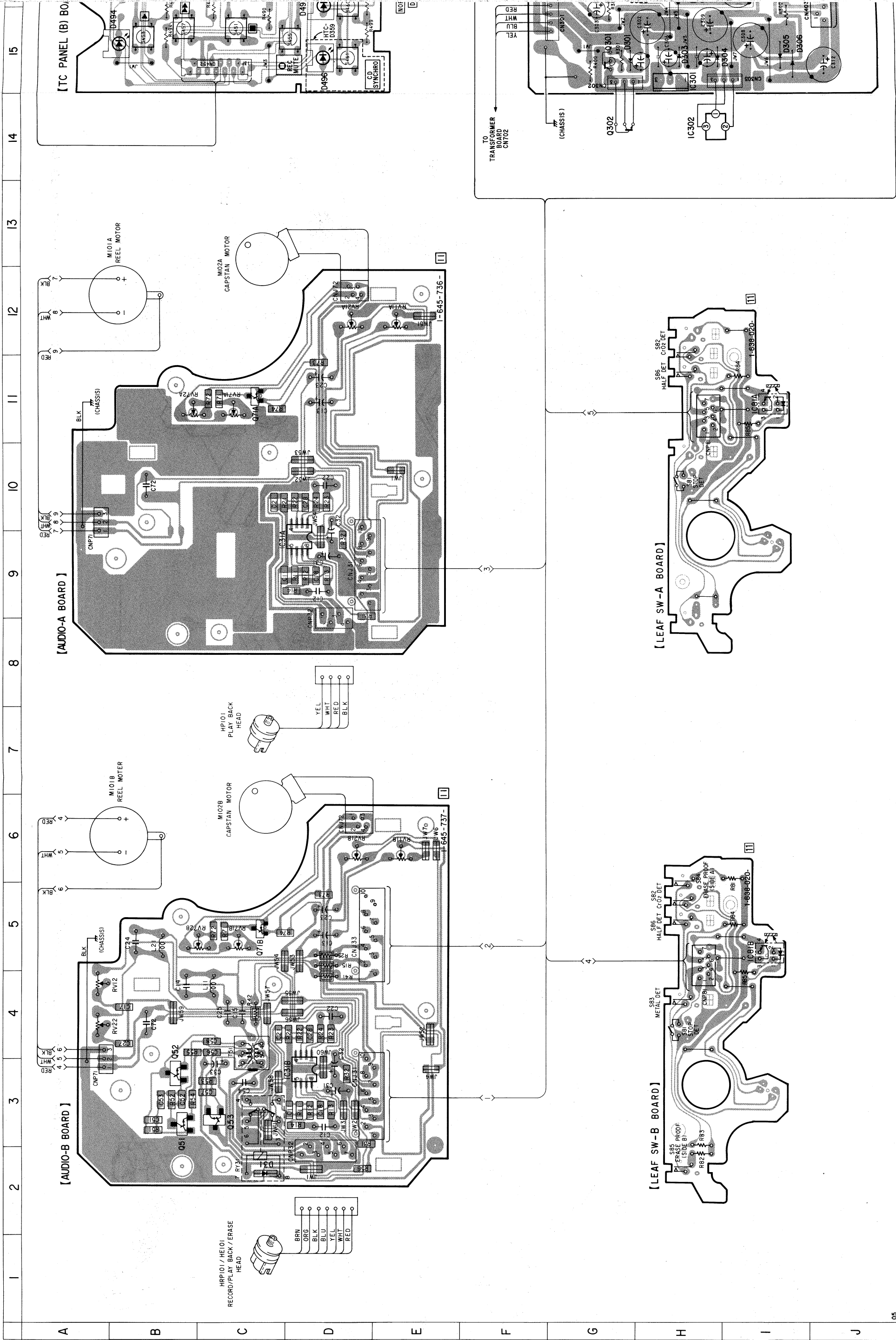






# 3-6. CASSETTE DECK SECTION PRINTED WIRING BOARDS

• See page 13 for Semiconductor Lead Layouts.

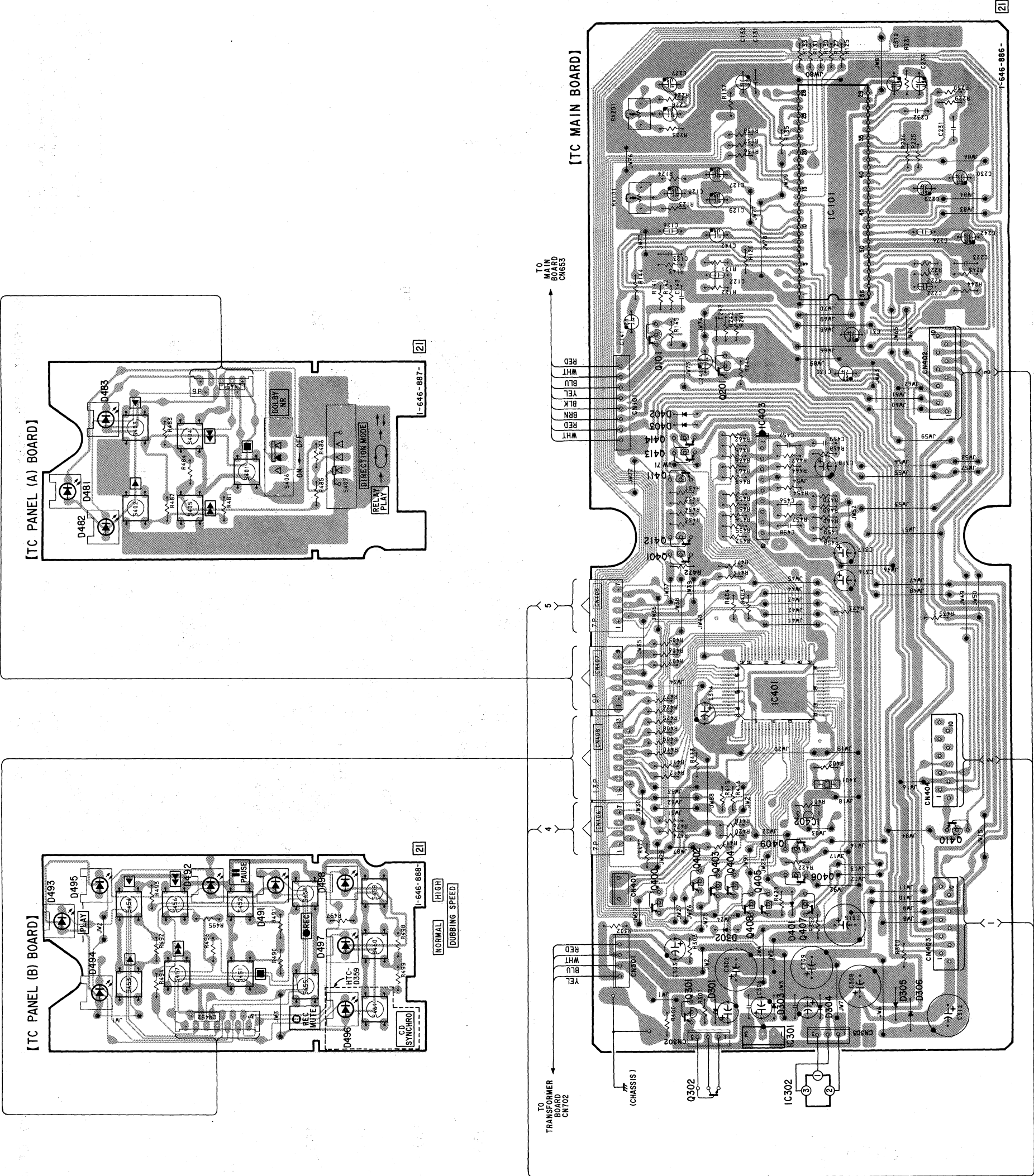


14	15	16	17	18	19	20	21	22	23	24
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• Semiconductor Location

Ref. No.	Location
D31	C-2
D301	G-15
D302	H-16
D303	H-16
D304	H-15
D305	I-15
D306	I-15
D401	H-16
D402	G-21
D403	G-20
D481	A-20
D482	B-19
D483	B-21
D491	C-16
D492	C-16
D493	A-16
D494	B-15
D495	B-16
D496	D-15
D497	D-16
D498	D-16
IC31A	D-9
IC31B	D-3
IC101	I-22
IC301	H-15
IC302	H-14
IC401	H-18
IC402	H-17
IC403	H-20
Q51	B-3
Q52	B-3
Q53	C-3
Q71A	C-11
Q71B	C-5
Q101	G-21
Q201	H-21
Q301	G-15
Q302	G-14
Q400	G-16
Q401	G-19
Q402	G-16
Q403	G-16
Q404	H-16
Q405	H-16
Q406	H-16
Q407	H-16
Q408	H-16
Q409	H-16
Q410	J-17
Q411	G-20
Q412	G-19
Q413	G-20
Q414	G-20

Note on Printed Wiring Board:  
• — : parts extracted from the component side.



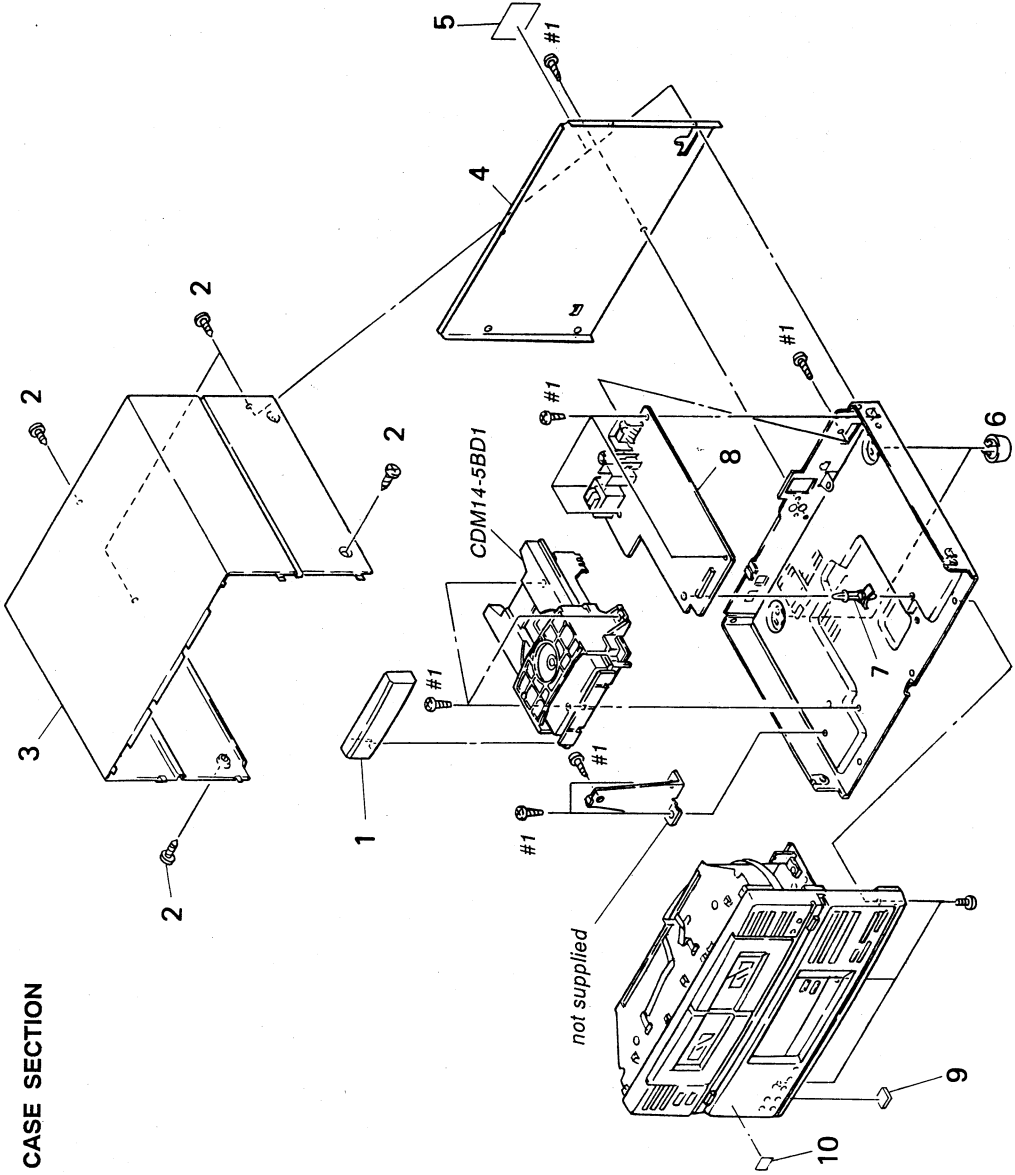
SECTION 4  
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts  
Example:  
KNOB, BALANCE (WHITE) ... (RED)  
↑  
Parts Color Cabinet's Color
- Abbreviations  
AUS: Australian Model IT: Italian Model  
EA: Saudi Arabia Model MY: Malaysia Model  
EE: East European Model SP: Singapore Model  
G: Germany Model
- Hardware (# mark) list is given in the last of this parts list.
- The mechanical parts with no reference number in the exploded views are not supplied.

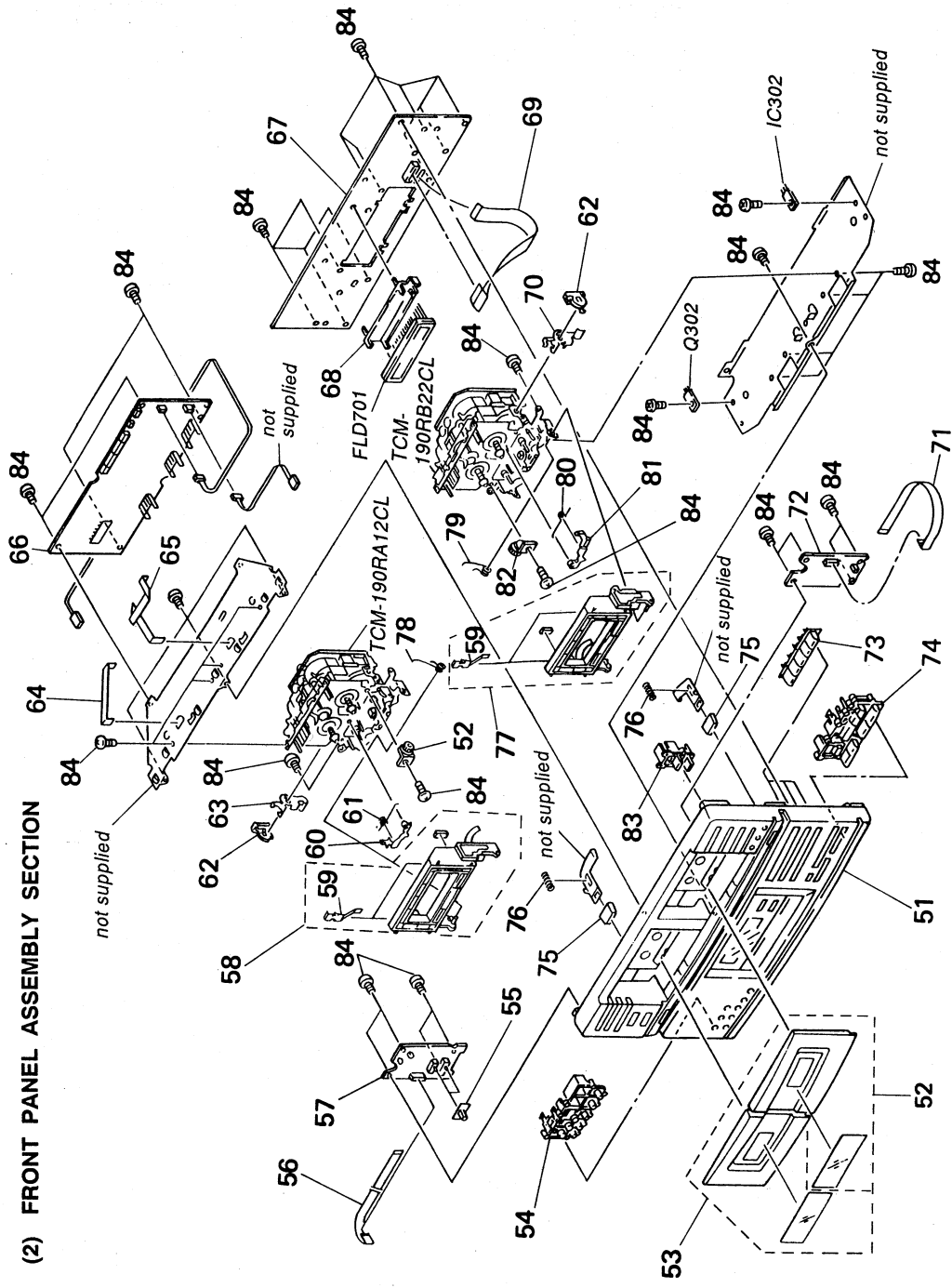
The components identified by mark **A** or dotted line with mark **A** are critical for safety. Replace only with part number specified.

(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	4-955-815-01	PANEL, LOADING	
2	3-363-099-01	SCREW (CASE 3 TP2) (D209:AUS/D309:UK, AUS)	
2	3-704-366-01	SCREW (CASE) (M3X8) (D209:AEP, UK, E, G, IT, EE, EA, MY, SP/D309:AEP, E, IT, G, EA, EE, MY, SP, CIS)	
* 3	4-955-759-31	CASE	
* 4	4-955-819-01	PANEL, BACK (D209:AEP, UK, G, IT)	
* 4	4-955-819-11	PANEL, BACK (D209:E, EE, MY, SP)	
* 4	4-955-819-21	PANEL, BACK (D209:EA, AUS)	
* 4	4-955-819-31	PANEL, BACK (D309:AEP, UK, G, IT)	
* 4	4-955-819-41	PANEL, BACK (D309:E, EE, MY, SP, CIS)	
* 4	4-955-819-51	PANEL, BACK (D309:EA, AUS)	

(2) FRONT PANEL ASSEMBLY SECTION

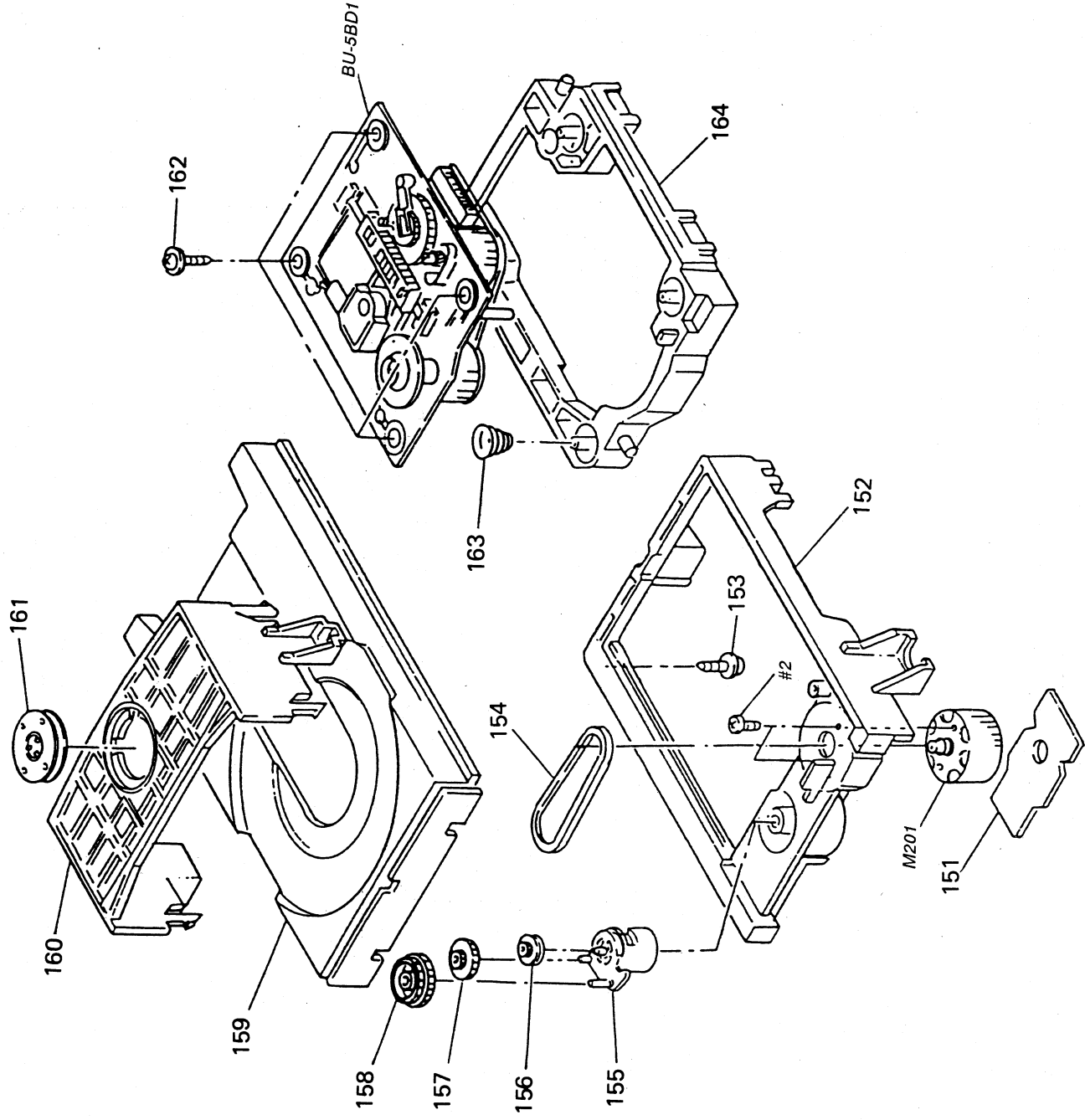


Ref. No.	Part No.	Description	Remark
51	X-4943-189-1	PANEL ASSY, FRONT (D209)	
51	X-4943-470-1	PANEL ASSY, FRONT (D309)	
52	X-4943-197-1	LID (B) ASSY, CASSETTE	
53	X-4943-196-1	LID (A) ASSY, CASSETTE	
54	4-955-812-01	BUTTON (CD-A)	
55	4-948-273-01	KNOB, SLIDE	
56	1-751-209-11	WIRE (FLAT TYPE) (9 CORE)	
* 57	1-646-887-11	TC PANEL (A) BOARD	
58	A-4325-163-A	CD MAIN BOARD, COMPLETE	
59	3-308-823-11	SPRING	
60	3-354-955-01	LEVER (EJ SAFTY LEVER L)	
61	3-354-961-01	SPRING (EJ SAFTY SPRING L)	
62	3-354-957-01	JOINT (LOCK LEVER)	
* 63	3-354-953-01	LEVER (LOCK LEVER L)	
64	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
65	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
* 66	A-4356-643-A	TC MAIN BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)	
* 66	A-4356-654-A	TC MAIN BOARD, COMPLETE (D209:UK, G/D309:UK, G)	
* 67	A-4356-653-A	CD PANEL BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)	
* 67	A-4356-662-A	CD PANEL BOARD, COMPLETE (D209:UK, G/D309:UK, G)	

Ref. No.	Part No.	Description	Remark
* 68	4-955-816-01	HOLDER (IF), FL TUBE	
69	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
* 70	3-354-954-01	LEVER (LOCK LEVER R)	
71	1-690-589-31	WIRE, FLAT TYPE (13 CORE) (D309:AUS)	
71	1-751-210-11	WIRE (FLAT TYPE) (13 CORE) (D209/D309: AEP, UK, E, G, IT, EE, EA, MY, SP, CIS)	
* 72	1-646-888-11	TC PANEL (B) BOARD	
73	4-955-741-01	BUTTON (PR)	
74	4-955-814-01	BUTTON (CD-C)	
75	4-935-355-41	BUTTON (EJECT)	
76	3-500-131-00	SPRING, COMPRESSION	
77	A-4325-164-A	HOLDER (R) ASSY, CASSETTE	
78	3-354-959-01	SPRING (LOADING L), TORSTON	
79	3-354-960-01	SPRING (LOADING R), TORSTON	
80	3-354-962-01	SPRING (EJ SAFTY SPRING R)	
81	3-354-956-01	LEVER (EJ SAFTY LEVER R)	
82	3-354-963-01	DAMPER	
83	4-955-813-01	BUTTON (CD-B)	
84	4-951-620-01	SCREW (2.6X8), +BYTP	
FLD701	1-519-681-21	INDICATOR TUBE, FLUORESCENT	
IC302	8-759-504-95	IC M5F79M07	
Q302	8-729-209-15	TRANSISTOR 2SD2012	



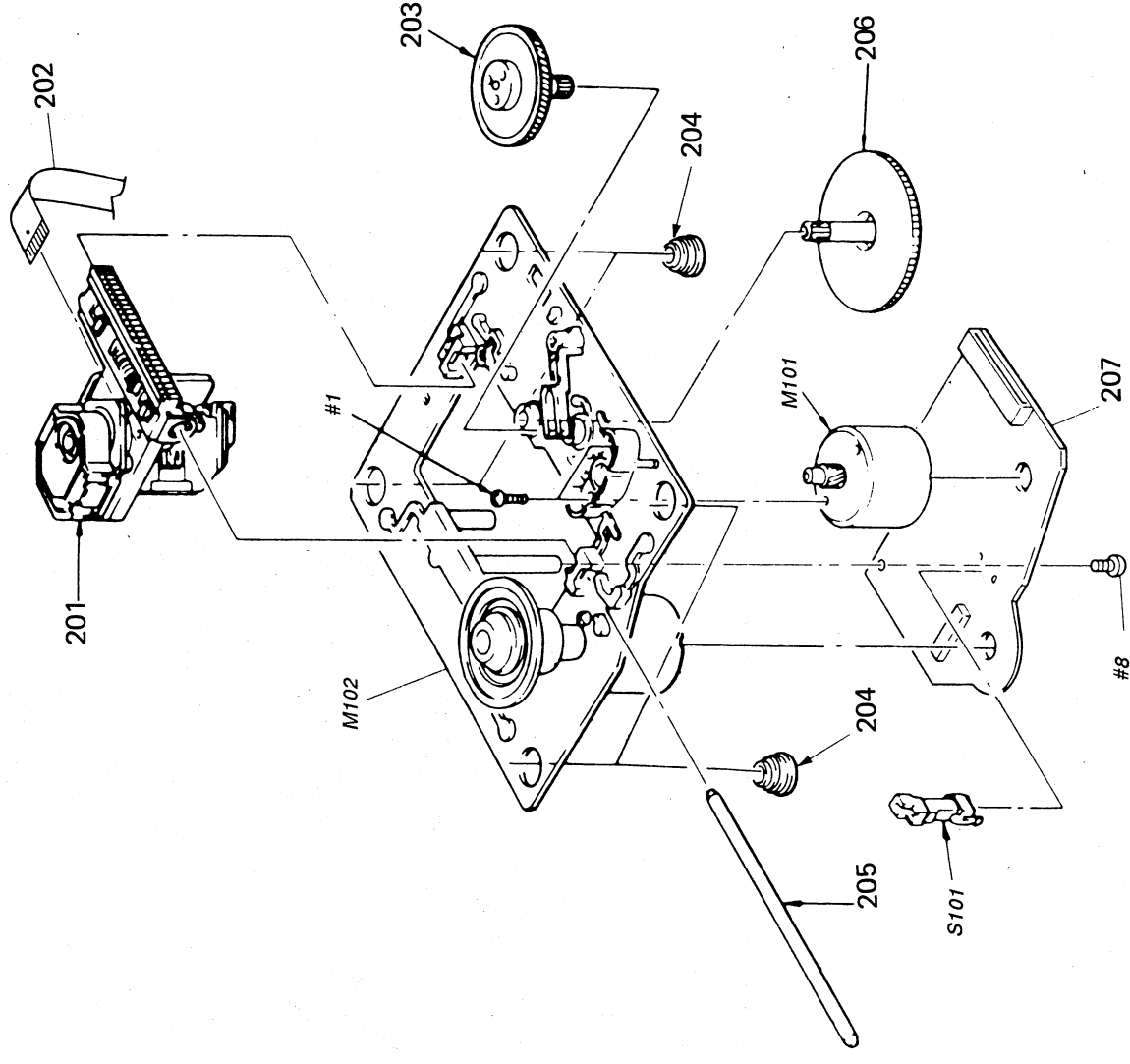
(3) CD MECHANISM SECTION (CDM14-5BD1)



Ref. No.	Part No.	Description	Remark
* 151	1-632-202-11	LOADING BOARD	
152	4-933-111-01	CHASSIS (MD)	
* 153	4-917-583-21	BRACKET, YOKE	
154	4-927-649-01	BELT	
155	4-933-109-01	CAM	
156	4-927-651-01	PULLEY (S)	
157	4-927-628-01	GEAR (C)	
158	4-933-107-01	GEAR (PL)	

Ref. No.	Part No.	Description	Remark
159	4-933-112-01	TABLE, DISK	
160	4-933-110-01	HOLDER (MG)	
* 161	1-452-538-11	MAGNET	
162	4-933-134-01	SCREW (+PTPH M2.6X6)	
163	4-917-541-01	SPRING (B)	
164	4-933-129-01	HOLDER (BU)	
M201	A-4604-363-A	MOTOR (L) ASSY	

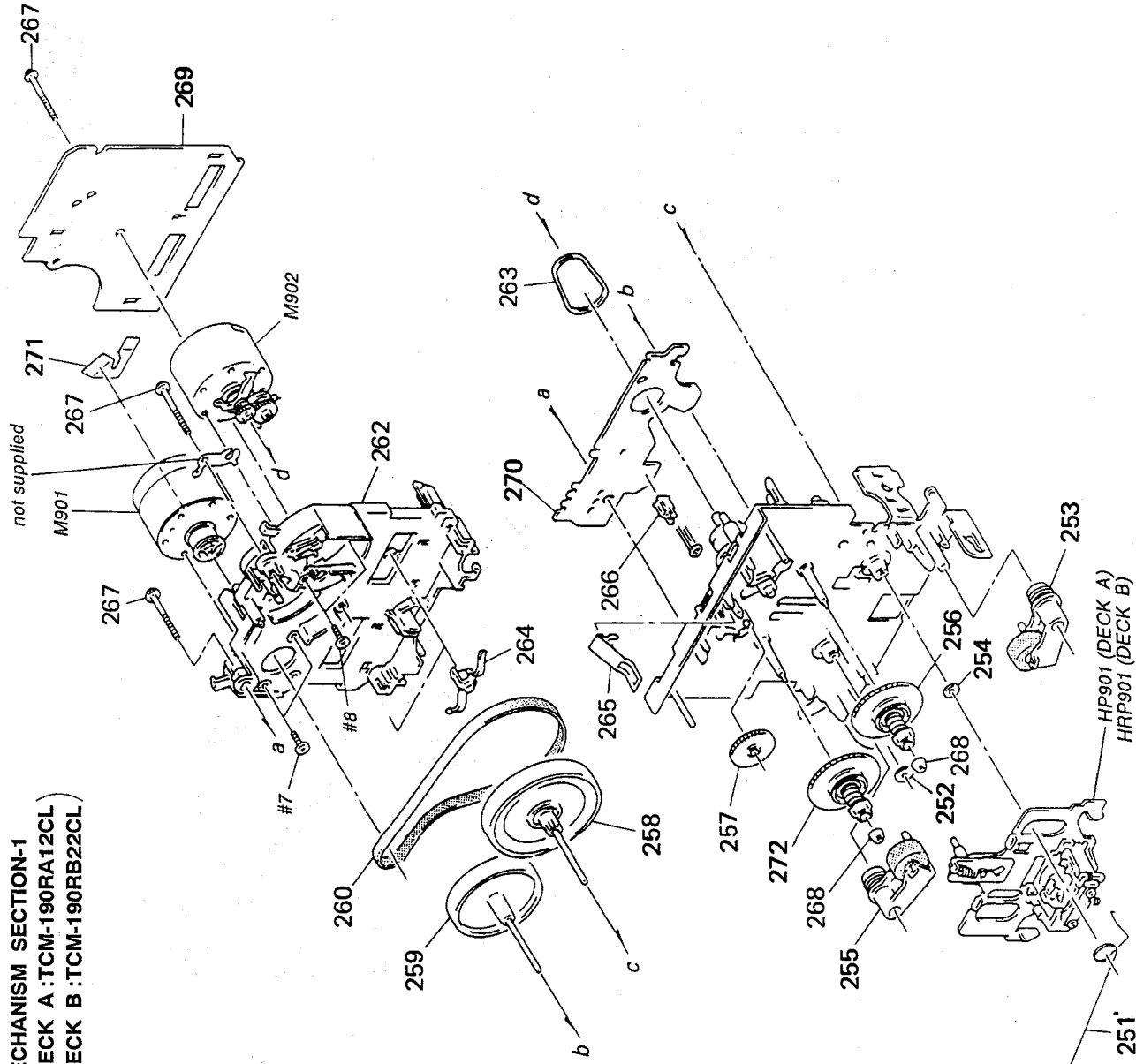
(4) OPTICAL PICK-UP BLOCK ASSEMBLY (BU-5BD1)



Ref. No.	Part No.	Description	Remark
201	8-848-144-11	DEVICE, OPTICAL KSS-240A	
202	1-575-001-11	WIRE, FLAT TYPE (12 CORE)	
203	4-917-567-01	GEAR (M)	
204	4-933-125-01	INSULATOR (A)	
205	4-917-565-01	SHAFT, SLED	
206	4-917-564-01	GEAR (P), FLATNESS	
* 207	A-4617-371-A	BD BOARD, COMPLETE	
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)	
M101	X-4917-504-1	MOTOR ASSY (SLED)	
M102	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	

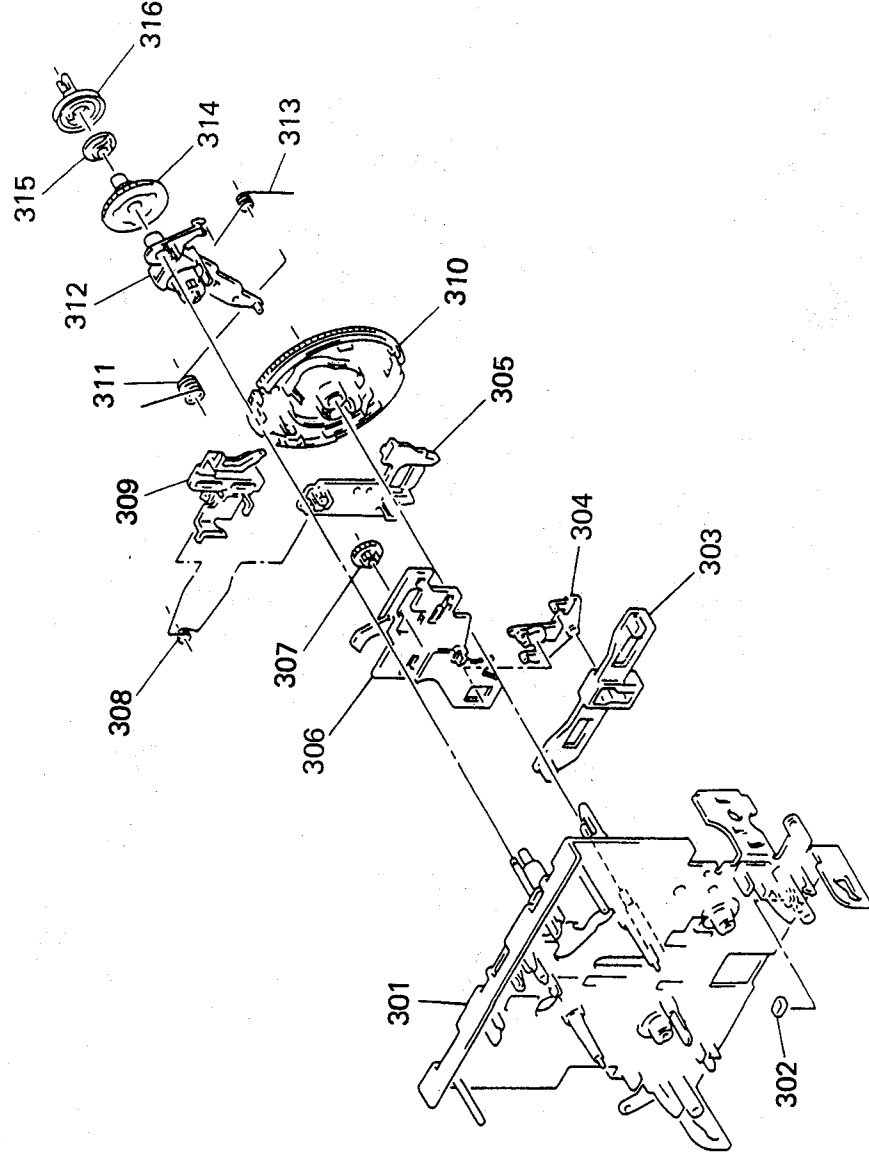
Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

(5) MECHANISM SECTION-1  
(DECK A :TCM-190RA12CL)  
(DECK B :TCM-190RB22CL)



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Remark
251	3-359-455-01	SPRING, TORSTON	265	3-359-430-01	SPRING (CASSETTE RETAINER), LEAF	
252	3-356-714-01	WASHER	266	3-343-419-01	HOLDER (S SENSOR A)	
253	X-3359-408-1	LEVER (PINCH LEVER FWD) ASSY	267	3-359-414-01	SCREW (+PTWH 2X23)	
254	3-356-713-01	WASHER	268	3-362-308-01	CAP (REEL)	
255	X-3359-409-1	LEVER (PINCH LEVER REV) ASSY				
256	X-3359-404-1	TABLE ASSY, REEL	* 269	A-2006-609-A	AUDIO BOARD, COMPLETE (DECK A)	
257	3-359-424-01	GEAR (REV GEAR)	* 269	A-2006-610-A	AUDIO BOARD, COMPLETE (DECK B)	
258	X-3359-406-1	FLYWHEEL (FWD) ASSY	* 270	1-638-020-11	LEAF SW BOARD	
259	X-3359-410-1	FLYWHEEL (REV) ASSY	271	1-638-983-11	PC BOARD, MOTOR FLEXIBLE	
260	3-359-417-01	BELT (FLAT), CAPSTAN	272	X-3362-078-1	TABLE ASSY (B), REEL	
* 262	3-359-436-01	BASE (THRUST RETAINER), FITTING	HP901	A-2003-838-A	DECK ASSY, HEAD (DECK A)	
263	3-359-466-01	BELT (FR), SQUARE	HRP901A-2004-190-A	DECK ASSY, HEAD (DECK B)		
264	3-575-321-00	RETAINER, THRUST, CAPSTAN	M901	X-3359-417-1	MOTOR ASSY (CAPSTAN)	
			M902	X-3363-501-1	MOTOR ASSY (REEL)	

(6) MECHANISM SECTION-2  
 (DECK A :TCM-190RA12CL)  
 (DECK B :TCM-190RB22CL)



Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Remark
301	X-3359-415-1	CHASSIS ASSY, MECHANICAL	309	3-359-429-01	SLIDER (BRAKE PLATE)	
302	3-359-469-01	SPACER	310	3-359-420-01	GEAR (CAM GEAR)	
* 303	3-359-425-01	SLIDER (REVERSE SLIDER)	311	3-359-456-01	SPRING (TRIGGER SPRING), TORSION	
304	3-359-426-01	LEVER (REVERSE LEVER)	312	X-3359-405-1	LEVER (FR ARM) ASSY	
* 305	3-359-427-01	SLIDER (LEVERSE SLIDER)	313	3-359-453-01	SPRING (FR ARM), TORSION	
* 306	3-359-415-01	SLIDER (TRIGGER SLIDER)	314	3-359-419-01	GEAR (FR GEAR)	
307	3-359-448-01	GEAR (TRIGGER)	315	3-359-421-01	CLUTCH (REEL DISK)	
308	3-359-454-01	SPRING, TORSION	316	3-359-418-01	PULLEY (FR PULLEY)	



# SECTION 5 ELECTRICAL PARTS LIST

AUDIO-A

AUDIO-B

## NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS  
All resistors are in ohms.  
METAL-film resistor.  
METAL OXIDE: Metal oxide-film resistor.  
F:nonflammable

- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS  
In each case, u:  $\mu$ , for example:  
uA...:  $\mu$ A... uPA...:  $\mu$ PA...  
uPB...:  $\mu$ PB... uPC...:  $\mu$ PC... uPD...:  $\mu$ PD...

- CAPACITORS  
uF:  $\mu$ F
- COILS  
uH:  $\mu$ H
- Abbreviations  
AUS: Australian Model  
EA: Saudi Arabia Model  
EE: East European Model  
G: Germany Model

IT: Italian Model  
MY: Malaysia Model  
SP: Singapore Model

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque  $\Delta$  sont critiques pour la sécurité.  
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-2006-623-A	AUDIO-A BOARD, COMPLETE *****		Q71	8-729-216-22	TRANSISTOR 2SA1162-G	
		< CAPACITOR >				< TRANSISTOR >	
C11	1-163-131-00	CERAMIC CHIP	5% 50V	R11	1-216-099-00	METAL CHIP	120K 5% 1/10W
C12	1-136-157-00	FILM	5% 50V	R12	1-216-025-00	METAL CHIP	100 5% 1/10W
C13	1-124-234-00	ELECT	20% 16V	R13	1-216-100-00	METAL GLAZE	130K 5% 1/10W
C18	1-163-117-00	CERAMIC CHIP	5% 50V	R14	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
C21	1-163-131-00	CERAMIC CHIP	5% 50V	R21	1-216-099-00	METAL CHIP	120K 5% 1/10W
C22	1-136-157-00	FILM	5% 50V	R22	1-216-025-00	METAL CHIP	100 5% 1/10W
C23	1-124-234-00	ELECT	20% 16V	R23	1-216-100-00	METAL GLAZE	130K 5% 1/10W
C28	1-163-117-00	CERAMIC CHIP	5% 50V	R24	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
C31	1-124-234-00	ELECT	20% 16V	R31	1-216-033-00	METAL CHIP	220 5% 1/10W
C32	1-124-234-00	ELECT	20% 16V	R32	1-216-033-00	METAL CHIP	220 5% 1/10W
C72	1-124-499-11	ELECT, NONPOLAR 1uF	20% 50V	R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W
		< JACK >		R72	1-216-081-00	METAL CHIP	22K 5% 1/10W
* CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD		R73	1-216-089-00	METAL CHIP	47K 5% 1/10W
* CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P		R74	1-216-089-00	METAL CHIP	47K 5% 1/10W
		< CONNECTOR >				< VARIABLE RESISTOR >	
* CNP32	1-580-772-11	PIN, CONNECTOR (PC BOARD) 4P		RV11	1-238-012-11	RES, ADJ, CARBON 1K	
* CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P		RV21	1-238-012-11	RES, ADJ, CARBON 1K	
		< IC >		RV71	1-238-016-11	RES, ADJ, CARBON 10K	
		< JUMPER RESISTOR >		RV72	1-238-016-11	RES, ADJ, CARBON 10K	
IC31	8-759-106-02	IC uPC4570G2				*****	
		< JUMPER RESISTOR >		*	A-2006-624-A	AUDIO-B BOARD, COMPLETE *****	
JW1	1-216-295-00	METAL CHIP	0 5% 1/10W			< CAPACITOR >	
JW51	1-216-296-00	METAL CHIP	0 5% 1/8W	C11	1-163-131-00	CERAMIC CHIP	390PF 5% 50V
JW52	1-216-296-00	METAL CHIP	0 5% 1/8W	C12	1-136-157-00	FILM	0.022uF 5% 50V
JW53	1-216-296-00	METAL CHIP	0 5% 1/8W	C13	1-124-234-00	ELECT	22uF 20% 16V
JW54	1-216-296-00	METAL CHIP	0 5% 1/8W	C14	1-136-273-91	FILM	75PF 5% 630V
				C15	1-164-080-11	CERAMIC	390PF 10% 50V

# AUDIO-B

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C17	1-163-103-00	CERAMIC CHIP	27PF 5%	JW56	1-216-296-00	METAL CHIP	0 5% 1/8W
C18	1-163-117-00	CERAMIC CHIP	100PF 5%	JW57	1-216-296-00	METAL CHIP	0 5% 1/8W
C21	1-163-131-00	CERAMIC CHIP	390PF 5%	JW58	1-216-296-00	METAL CHIP	0 5% 1/8W
C22	1-136-157-00	FILM	0.022uF 5%	JW59	1-216-296-00	METAL CHIP	0 5% 1/8W
C23	1-124-234-00	ELECT	22uF 20%	JW60	1-216-296-00	METAL CHIP	0 5% 1/8W
C24	1-136-273-91	FILM	75PF 5%	JW61	1-216-296-00	METAL CHIP	0 5% 1/8W
C25	1-164-080-11	CERAMIC	390PF 10%	JW62	1-216-296-00	METAL CHIP	0 5% 1/8W
C27	1-163-103-00	CERAMIC CHIP	27PF 5%	JW63	1-216-296-00	METAL CHIP	0 5% 1/8W
C28	1-163-117-00	CERAMIC CHIP	100PF 5%				
C31	1-124-234-00	ELECT	22uF 20%		< COIL >		
C32	1-124-234-00	ELECT	22uF 20%	L11	1-410-780-11	INDUCTOR 27mH	
C33	1-124-234-00	ELECT	22uF 20%	L21	1-410-780-11	INDUCTOR 27mH	
C51	1-163-019-00	CERAMIC CHIP	0.0068uF 10%		< TRANSISTOR >		
C52	1-163-019-00	CERAMIC CHIP	0.0068uF 10%				
C53	1-163-022-00	CERAMIC CHIP	0.012uF 10%				
C54	1-136-559-11	FILM	0.0047uF 5%	Q51	8-729-111-29	TRANSISTOR 2SD1616A-K	
C56	1-164-505-11	CERAMIC CHIP	2.2uF 16V	Q52	8-729-111-29	TRANSISTOR 2SD1616A-K	
C57	1-164-346-11	CERAMIC CHIP	1uF 16V	Q53	8-729-111-29	TRANSISTOR 2SD1616A-K	
C58	1-163-024-00	CERAMIC CHIP	0.018uF 10%	Q71	8-729-216-22	TRANSISTOR 2SA1162-G	
C72	1-124-439-11	ELECT, NONPOLAR 1uF	20%		< RESISTOR >		
		< JACK >					
	CNJ31	1-580-782-11	CONNECTOR, BOARD TO BOARD				
	CNJ33	1-580-782-11	CONNECTOR, BOARD TO BOARD				
	CNJ72	1-580-411-11	SOCKET, CONNECTOR 4P				
		< CONNECTOR >					
	CNP32	1-580-781-11	PIN, CONNECTOR (PC BOARD) 7P				
	CNP71	1-564-719-11	PIN, CONNECTOR (SMALL TYPE) 3P				
		< DIODE >					
D31	8-719-404-46	DIODE MA110		R11	1-216-099-00	METAL CHIP	120K 5% 1/10W
		< IC >		R12	1-216-025-00	METAL CHIP	100 5% 1/10W
				R13	1-216-100-00	METAL GLAZE	130K 5% 1/10W
				R14	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
				R15	1-249-430-11	CARBON	12K 5% 1/4W
					< RESISTOR >		
				R21	1-216-099-00	METAL CHIP	120K 5% 1/10W
				R22	1-216-025-00	METAL CHIP	100 5% 1/10W
				R23	1-216-100-00	METAL GLAZE	130K 5% 1/10W
				R24	1-216-067-00	METAL CHIP	5.6K 5% 1/10W
				R25	1-249-430-11	CARBON	12K 5% 1/4W
					< DIODE >		
				R31	1-216-033-00	METAL CHIP	220 5% 1/10W
				R32	1-216-033-00	METAL CHIP	220 5% 1/10W
				R41	1-249-393-11	CARBON	10 5% 1/4W F
				R42	1-249-393-11	CARBON	10 5% 1/4W F
				R51	1-216-075-00	METAL CHIP	12K 5% 1/10W
IC31	8-759-106-02	IC uPC4570G2					
		< JUMPER RESISTOR >					
JW1	1-216-296-00	METAL CHIP	0 5% 1/8W	R52	1-216-075-00	METAL CHIP	12K 5% 1/10W
JW2	1-216-295-00	METAL CHIP	0 5% 1/10W	R53	1-216-073-00	METAL CHIP	10K 5% 1/10W
JW3	1-216-295-00	METAL CHIP	0 5% 1/10W	R54	1-216-309-00	METAL CHIP	5.6 5% 1/10W
JW4	1-216-295-00	METAL CHIP	0 5% 1/10W	R55	1-216-309-00	METAL CHIP	5.6 5% 1/10W
JW6	1-216-295-00	METAL CHIP	0 5% 1/10W	R56	1-216-298-00	METAL CHIP	2.2 5% 1/10W
JW7	1-216-295-00	METAL CHIP	0 5% 1/10W				
JW52	1-216-296-00	METAL CHIP	0 5% 1/8W	R71	1-216-082-00	METAL GLAZE	24K 5% 1/10W
JW53	1-216-296-00	METAL CHIP	0 5% 1/8W	R72	1-216-081-00	METAL CHIP	22K 5% 1/10W
JW54	1-216-296-00	METAL CHIP	0 5% 1/8W	R73	1-216-089-00	METAL CHIP	47K 5% 1/10W
JW55	1-216-296-00	METAL CHIP	0 5% 1/8W	R74	1-216-089-00	METAL CHIP	47K 5% 1/10W
					< VARIABLE RESISTOR >		
				RV11	1-238-012-11	RES, ADJ, CARBON 1K	
				RV12	1-238-551-11	RES, ADJ, CARBON 220K	
				RV21	1-238-012-11	RES, ADJ, CARBON 1K	

## AUDIO-B

## BD

Ref. No.	Part No.	Description	Remark
RV22	1-238-551-11 RES, ADJ, CARBON 220K		
RV71	1-238-016-11 RES, ADJ, CARBON 10K		
RV72	1-238-016-11 RES, ADJ, CARBON 10K		
	< RELAY >		
RV31	1-515-726-11 RELAY		
	< TRANSFORMER >		
T51	1-406-419-11 COIL, BIAS OSCILLATION		
	*****		
	A-4617-161-A BD BOARD, COMPLETE		
	*****		
	< CAPACITOR >		
C101	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C102	1-163-989-11 CERAMIC CHIP	0.033uF	10%
C103	1-126-163-11 ELECT	4.7uF	20%
C104	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C105	1-126-154-11 ELECT	47uF	20%
C106	1-126-154-11 ELECT	47uF	20%
C107	1-126-154-11 ELECT	47uF	20%
C108	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C109	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C110	1-163-989-11 CERAMIC CHIP	0.033uF	10%
C111	1-131-367-00 TANTALUM	22uF	10%
C112	1-164-232-11 CERAMIC CHIP	0.01uF	50V
C113	1-164-232-11 CERAMIC CHIP	0.01uF	50V
C114	1-164-161-11 CERAMIC CHIP	0.0022uF	10%
C115	1-164-161-11 CERAMIC CHIP	0.0022uF	10%
C117	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C118	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C119	1-164-161-11 CERAMIC CHIP	0.0022uF	10%
C120	1-163-989-11 CERAMIC CHIP	0.033uF	10%
C151	1-163-019-00 CERAMIC CHIP	0.0068uF	10%
C152	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C153	1-163-006-11 CERAMIC CHIP	560PF	10%
C154	1-164-161-11 CERAMIC CHIP	0.0022uF	10%
C155	1-163-023-00 CERAMIC CHIP	0.015uF	5%
C171	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C172	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C173	1-163-038-00 CERAMIC CHIP	0.1uF	25V
C174	1-163-038-00 CERAMIC CHIP	0.1uF	25V
	< CONNECTOR >		
CN101	1-568-796-11 SOCKET, CONNECTOR 22P		
CN102	1-568-795-11 SOCKET, CONNECTOR 12P		
CN103	1-564-721-11 PIN, CONNECTOR (SMALL TYPE) 5P		
D101	8-719-021-25 DIODE UZM4. 7X		
	< IC >		
IC101	8-752-058-77 IC CXA1372AQ		
IC102	8-759-822-36 IC LA532M		
IC103	8-759-633-65 IC M54641L		
	< JACK >		
J101	1-216-295-00 METAL CHIP	0	5%
J102	1-216-295-00 METAL CHIP	0	5%
	< MOTOR >		
M101	X-4917-504-1 MOTOR ASSY (SLED)		
	< TRANSISTOR >		
Q101	8-729-901-01 TRANSISTOR DTC144EK		
	< RESISTOR >		
R101	1-216-097-00 METAL CHIP	100K	5%
R102	1-216-095-00 METAL CHIP	82K	5%
R103	1-216-091-00 METAL CHIP	56K	5%
R104	1-216-099-00 METAL CHIP	120K	5%
R105	1-216-069-00 METAL CHIP	6.8K	5%
R106	1-216-061-00 METAL CHIP	3.3K	5%
R107	1-216-114-00 METAL GLAZE	510K	5%
R108	1-216-105-00 METAL CHIP	220K	5%
R109	1-216-061-00 METAL CHIP	3.3K	5%
R110	1-216-049-00 METAL CHIP	1K	5%
R111	1-216-049-00 METAL CHIP	1K	5%
R112	1-216-083-00 METAL CHIP	27K	5%
R113	1-216-071-00 METAL CHIP	8.2K	5%
R114	1-216-105-00 METAL CHIP	220K	5%
R152	1-216-073-00 METAL CHIP	10K	5%
R153	1-216-085-00 METAL CHIP	33K	5%
R154	1-216-085-00 METAL CHIP	33K	5%
R155	1-216-093-00 METAL CHIP	68K	5%
R156	1-216-081-00 METAL CHIP	22K	5%
R157	1-216-079-00 METAL CHIP	18K	5%
R158	1-216-079-00 METAL CHIP	18K	5%
R159	1-216-079-00 METAL CHIP	18K	5%
R160	1-216-049-00 METAL CHIP	1K	5%
R171	1-216-001-00 METAL CHIP	10	5%
R172	1-216-001-00 METAL CHIP	10	5%
R173	1-216-001-00 METAL CHIP	10	5%
R174	1-216-001-00 METAL CHIP	10	5%
	< VARIABLE RESISTOR >		
RV101	1-238-016-11 RES, ADJ, CARBON 10K		
RV102	1-238-016-11 RES, ADJ, CARBON 10K		

## CD MAIN

## CD PANEL

Ref. No.	Part No.	Description	Remark
R550	1-249-413-11	CARBON	470 5% 1/4W F
R551	1-249-441-11	CARBON	100K 5% 1/4W
R552	1-249-441-11	CARBON	100K 5% 1/4W
R553	1-249-441-11	CARBON	100K 5% 1/4W
R600	1-249-409-11	CARBON	220 5% 1/4W F
R601	1-249-409-11	CARBON	220 5% 1/4W F
R602	1-249-433-11	CARBON	22K 5% 1/4W
R603	1-249-433-11	CARBON	22K 5% 1/4W
R604	1-249-433-11	CARBON	22K 5% 1/4W
R609	1-249-435-11	CARBON	33K 5% 1/4W
R610	1-249-438-11	CARBON	56K 5% 1/4W
R611	1-249-429-11	CARBON	10K 5% 1/4W
R612	1-249-429-11	CARBON	10K 5% 1/4W
R613	1-249-417-11	CARBON	1K 5% 1/4W F
R614	1-249-429-11	CARBON	10K 5% 1/4W
R615	1-249-433-11	CARBON	22K 5% 1/4W
R616	1-249-393-11	CARBON	10 5% 1/4W F
R617	1-249-413-11	CARBON	470 5% 1/4W F
R801	1-249-405-11	CARBON	100 5% 1/4W F
< TRANSFORMER >			
ΔT500	1-423-426-11	TRANSFORMER, POWER	
< VIBRATOR >			
X501	1-579-833-21	VIBRATOR, CRYSTAL 33MHz	
*****			
*	A-4356-653-A	CD PANEL BOARD, COMPLETE (D209: AEP, E, IT, EE, EA, AUS, MY, SP/D309: AEP, E, IT, EA, EE, MY, SP, CIS, AUS)	
*****			
*	A-4356-662-A	CD PANEL BOARD, COMPLETE (D209: UK, G/D309: UK, G)	
*****			
*	4-955-816-01	HOLDER (1F), FL TUBE	
< CAPACITOR >			
C702	1-161-494-00	CERAMIC	0.022uF 25V
C703	1-161-494-00	CERAMIC	0.022uF 25V
C704	1-161-494-00	CERAMIC	0.022uF 25V
C705	1-164-159-11	CERAMIC	0.1uF 50V
C706	1-124-126-00	ELECT	47uF 20% 10V
< CONNECTOR >			
* CN701	1-568-842-11	SOCKET, CONNECTOR 27P	
< COMPOSITION CIRCUIT BLOCK >			
CP701	1-239-612-11	COMPOSITION CIRCUIT BLOCK	
CP702	1-239-613-11	COMPOSITION CIRCUIT BLOCK	

Ref. No.	Part No.	Description	Remark
< DIODE >			
D701	8-719-987-63	DIODE 1N4148M	
D702	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	
D705	8-719-987-63	DIODE 1N4148M	
D706	8-719-987-63	DIODE 1N4148M	
D707	8-719-987-63	DIODE 1N4148M	
D708	8-719-987-63	DIODE 1N4148M	
D709	8-719-987-63	DIODE 1N4148M	
D710	8-719-987-63	DIODE 1N4148M	
D711	8-719-987-63	DIODE 1N4148M	
D712	8-719-001-21	DIODE UZL-9H1	
< FLUORESCENT INDICATOR >			
FLD701	1-519-681-21	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC701	8-759-156-33	IC uPD75216ACW-W32	
< RESISTOR >			
R701	1-249-435-11	CARBON	33K 5% 1/4W
R702	1-249-435-11	CARBON	33K 5% 1/4W
R703	1-249-435-11	CARBON	33K 5% 1/4W
R704	1-249-435-11	CARBON	33K 5% 1/4W
R705	1-249-435-11	CARBON	33K 5% 1/4W
R706	1-249-425-11	CARBON	4.7K 5% 1/4W F
R707	1-249-425-11	CARBON	4.7K 5% 1/4W F
R708	1-249-439-11	CARBON	68K 5% 1/4W
< SWITCH >			
S701	1-554-303-21	SWITCH, TACTILE (PROGRAM)	
S702	1-554-303-21	SWITCH, TACTILE (REPEAT)	
S703	1-554-303-21	SWITCH, TACTILE (PAUSE)	
S704	1-554-303-21	SWITCH, TACTILE (▶▶)	
S705	1-554-303-21	SWITCH, TACTILE (CONTINUE)	
S706	1-554-303-21	SWITCH, TACTILE (FADER)	
S707	1-554-303-21	SWITCH, TACTILE (PLAY)	
S708	1-554-303-21	SWITCH, TACTILE (AMS K4)	
S709	1-554-303-21	SWITCH, TACTILE (SHUFFLE)	
S710	1-554-303-21	SWITCH, TACTILE (TIME)	
S711	1-554-303-21	SWITCH, TACTILE (◀◀)	
S712	1-554-303-21	SWITCH, TACTILE (OPEN/CLOSE)	
S713	1-554-303-21	SWITCH, TACTILE (STOP)	
S714	1-554-303-21	SWITCH, TACTILE (AMS D4)	
S715	1-554-303-21	SWITCH, TACTILE (EDIT/TIME FADE)	

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## CD PANEL

## LEAF SW-A

Ref. No.	Part No.	Description	Remark
S716	1-554-303-21	SWITCH, TACTILE (TIME SET)	
S718	1-554-303-21	SWITCH, TACTILE (MUSIC SCAN)	
S719	1-554-303-21	SWITCH, TACTILE (1)	
S720	1-554-303-21	SWITCH, TACTILE (6)	
S721	1-554-303-21	SWITCH, TACTILE (11)	
S723	1-554-303-21	SWITCH, TACTILE (2)	
S724	1-554-303-21	SWITCH, TACTILE (7)	
S725	1-554-303-21	SWITCH, TACTILE (12)	
S727	1-554-303-21	SWITCH, TACTILE (3)	
S728	1-554-303-21	SWITCH, TACTILE (8)	
S731	1-554-303-21	SWITCH, TACTILE (4)	
S732	1-554-303-21	SWITCH, TACTILE (9)	
S734	1-554-303-21	SWITCH, TACTILE (5)	
S736	1-554-303-21	SWITCH, TACTILE (10)	
S739	1-554-303-21	SWITCH, TACTILE (>12)	
S740	1-554-303-21	SWITCH, TACTILE (CHECK)	
S741	1-554-303-21	SWITCH, TACTILE (CLEAR)	
S742	1-554-303-21	SWITCH, TACTILE (A. SPACE/A. CUE)	

&lt; VIBRATOR &gt;

X701 1-577-082-11 VIBRATOR, CERAMIC 4MHz

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\* 1-638-020-11 LEAF SW-A BOARD

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&lt; CONNECTOR &gt;

\* CNP81 1-568-850-11 SOCKET, CONNECTOR 7P

&lt; IC &gt;

IC81 8-719-710-03 DIODE NJL5165K-B

&lt; RESISTOR &gt;

R84 1-249-417-11 CARBON 1K 5% 1/4W F

R85 1-249-408-11 CARBON 180 5% 1/4W F

&lt; SWITCH &gt;

S81 1-571-958-11 SWITCH, PUSH (1 KEY) (STOP DET)

S82 1-571-281-21 SWITCH, LEAF (TYPE II DET)

S86 1-571-281-21 SWITCH, LEAF (HALF DET)

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\* 1-638-020-11 LEAF SW-B BOARD

\*\*\*\*\*

8-719-710-03 DIODE NJL5165K-B

&lt; CONNECTOR &gt;

\* CNP81 1-568-850-11 SOCKET, CONNECTOR 7P

## LEAF SW-B

## LOADING

## TC MAIN

Ref. No.	Part No.	Description	Remark
		< RESISTOR >	
R81	1-249-414-11	CARBON	560 5% 1/4W F
R82	1-247-818-11	CARBON	300 5% 1/4W
R83	1-247-834-11	CARBON	1.3K 5% 1/4W
R84	1-249-417-11	CARBON	1K 5% 1/4W F
R85	1-249-408-11	CARBON	180 5% 1/4W F
		< SWITCH >	
S81	1-571-958-11	SWITCH, PUSH (1 KEY) (STOP DET)	
S82	1-571-281-21	SWITCH, LEAF (TYPE II DET)	
S84	1-571-281-21	SWITCH, LEAF (ERASE PROOF)	
S85	1-571-281-21	SWITCH, LEAF (ERASE PROOF)	
S86	1-571-281-21	SWITCH, LEAF (HALF DET)	
		*****	
*	1-632-202-11	LOADING BOARD	
		*****	
		< CONNECTOR >	
* CN301	1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P	
		< MOTOR >	
M201	X-4604-363-A	MOTOR (L) ASSY	
		< SWITCH >	
S271	1-572-086-11	SWITCH, LEAF	
S272	1-572-086-11	SWITCH, LEAF	
		*****	
*	A-4356-643-A	TC MAIN BOARD, COMPLETE (D209:AEP, E, IT, EE, EA, AUS, MY, SP/D309:AEP, E, IT, EA, EE, MY, SP, CIS, AUS)	
		*****	
*	A-4356-654-A	TC MAIN BOARD, COMPLETE (D209:UK, G/D309:UK, G)	
		*****	
*	4-942-204-01	PLATE, GROUND	
		< CAPACITOR >	
C122	1-130-479-00	MYLAR	0.0047uF 5% 50V
C123	1-162-291-31	CERAMIC	560PF 10% 50V
C126	1-136-165-00	FILM	0.1uF 5% 50V
C127	1-126-791-11	ELECT	10uF 20% 35V
C128	1-126-301-11	ELECT	1uF 20% 50V
C129	1-124-465-00	ELECT	0.47uF 20% 50V
C130	1-126-791-11	ELECT	10uF 20% 35V
C131	1-164-159-11	CERAMIC	0.1uF 50V
C132	1-126-791-11	ELECT	10uF 20% 35V
C141	1-126-301-11	ELECT	1uF 20% 50V
C142	1-126-791-11	ELECT	10uF 20% 35V
C143	1-161-375-00	CERAMIC	0.0022uF 20% 50V
C222	1-130-479-00	MYLAR	0.0047uF 5% 50V
C223	1-162-291-31	CERAMIC	560PF 10% 50V
C226	1-136-165-00	FILM	0.1uF 5% 50V

# TC MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
C227	1-126-791-11	ELECT	10uF	D302	8-719-987-63	DIODE 1N4148M	
C228	1-126-301-11	ELECT	1uF	D303	8-719-987-63	DIODE 1N4148M	
C229	1-124-465-00	ELECT	0.47uF	D304	8-719-987-63	DIODE 1N4148M	
C230	1-126-791-11	ELECT	10uF	D305	8-719-200-82	DIODE 11ES2	
C231	1-161-377-00	CERAMIC	0.0047uF	D306	8-719-200-82	DIODE 11ES2	
C232	1-161-375-00	CERAMIC	0.0022uF	D401	8-719-987-63	DIODE 1N4148M	
C233	1-124-465-00	ELECT	0.47uF	D402	8-719-987-63	DIODE 1N4148M	
C241	1-126-301-11	ELECT	1uF	D403	8-719-987-63	DIODE 1N4148M	
C242	1-126-791-11	ELECT	10uF	< IC >			
C243	1-161-375-00	CERAMIC	0.0022uF	< IC >			
C301	1-126-791-11	ELECT	10uF	IC101	8-759-098-75	IC HA12171NT	
C302	1-126-926-11	ELECT	1000uF	IC301	8-759-071-48	IC M5F7807L	
C303	1-123-382-00	ELECT	3.3uF	IC401	8-759-076-36	IC M50964-SOX-1044	
C304	1-164-159-11	CERAMIC	0.1uF	IC402	8-759-635-63	IC M51943BSL	
C305	1-164-159-11	CERAMIC	0.1uF	IC403	8-759-207-05	IC TA7272P	
C306	1-126-933-11	ELECT	100uF	< TRANSISTOR >			
C307	1-126-933-11	ELECT	100uF	Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C308	1-126-926-11	ELECT	1000uF	Q201	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C309	1-126-926-11	ELECT	1000uF	Q301	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C310	1-126-791-11	ELECT	10uF	Q400	8-729-900-65	TRANSISTOR DTA144ES	
C311	1-126-791-11	ELECT	10uF	Q401	8-729-900-65	TRANSISTOR DTA144ES	
C312	1-126-949-11	ELECT	220uF	Q402	8-729-900-65	TRANSISTOR DTA144ES	
C314	1-124-584-00	ELECT	100uF	Q403	8-729-900-65	TRANSISTOR DTA144ES	
C315	1-126-926-11	ELECT	1000uF	Q404	8-729-900-65	TRANSISTOR DTA144ES	
C316	1-126-933-11	ELECT	100uF	Q405	8-729-900-65	TRANSISTOR DTA144ES	
C317	1-126-933-11	ELECT	100uF	Q406	8-729-900-89	TRANSISTOR DTC144ES	
C318	1-126-933-11	ELECT	100uF	Q407	8-729-900-89	TRANSISTOR DTC144ES	
C456	1-162-290-31	CERAMIC	470PF	Q408	8-729-900-65	TRANSISTOR DTA144ES	
C457	1-162-290-31	CERAMIC	470PF	Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C458	1-164-159-11	CERAMIC	0.1uF	Q410	8-729-119-78	TRANSISTOR 2SC2785-HFE	
C459	1-164-159-11	CERAMIC	0.1uF	Q411	8-729-801-84	TRANSISTOR 2SB1013-4	
< CONNECTOR >				Q412	8-729-801-84	TRANSISTOR 2SB1013-4	
CN101	1-564-523-11	PLUG, CONNECTOR 8P		Q413	8-729-900-65	TRANSISTOR DTA144ES	
CN301	1-564-519-11	PLUG, CONNECTOR 4P		Q414	8-729-900-89	TRANSISTOR DTC144ES	
CN302	1-564-506-11	PLUG, CONNECTOR 3P		< RESISTOR >			
CN303	1-564-506-11	PLUG, CONNECTOR 3P		R120	1-215-451-00	METAL	18K 1% 1/6W
CN401	1-564-517-11	PLUG, CONNECTOR 2P		R121	1-249-430-11	CARBON	12K 5% 1/4W
CN402	1-580-783-11	CONNECTOR, BOARD TO BOARD		R122	1-249-431-11	CARBON	15K 5% 1/4W
CN403	1-580-783-11	CONNECTOR, BOARD TO BOARD		R123	1-249-425-11	CARBON	4.7K 5% 1/4W F
CN404	1-580-783-11	CONNECTOR, BOARD TO BOARD		R124	1-249-428-11	CARBON	8.2K 5% 1/4W F
CN405	1-568-437-11	SOCKET, CONNECTOR 7P		R125	1-249-429-11	CARBON	10K 5% 1/4W
CN406	1-568-437-11	SOCKET, CONNECTOR 7P		R127	1-249-429-11	CARBON	10K 5% 1/4W
CN407	1-568-441-11	SOCKET, CONNECTOR 9P		R130	1-249-429-11	CARBON	10K 5% 1/4W
CN408	1-568-444-11	SOCKET, CONNECTOR 13P		R131	1-249-425-11	CARBON	4.7K 5% 1/4W F
< DIODE >				R132	1-249-429-11	CARBON	10K 5% 1/4W
D301	8-719-000-78	DIODE UZL-71.2		R133	1-249-429-11	CARBON	10K 5% 1/4W
				R135	1-247-864-11	CARBON	24K 5% 1/4W

## TC MAIN

## TC PANEL (A)

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R136	1-249-429-11	CARBON	10K 5% 1/4W	R425	1-249-417-11	CARBON	1K 5% 1/4W F
R137	1-249-429-11	CARBON	10K 5% 1/4W	R426	1-249-417-11	CARBON	1K 5% 1/4W F
R138	1-249-429-11	CARBON	10K 5% 1/4W	R427	1-249-417-11	CARBON	1K 5% 1/4W F
R141	1-249-421-11	CARBON	2.2K 5% 1/4W F	R431	1-249-429-11	CARBON	10K 5% 1/4W
R142	1-249-428-11	CARBON	8.2K 5% 1/4W F	R432	1-249-415-11	CARBON	680 5% 1/4W F
R143	1-247-840-00	CARBON	2.4K 5% 1/4W	R433	1-249-429-11	CARBON	10K 5% 1/4W
R144	1-249-433-11	CARBON	22K 5% 1/4W	R434	1-249-415-11	CARBON	680 5% 1/4W F
R145	1-249-417-11	CARBON	1K 5% 1/4W F	R435	1-249-429-11	CARBON	10K 5% 1/4W
R221	1-249-430-11	CARBON	12K 5% 1/4W	R451	1-249-425-11	CARBON	4.7K 5% 1/4W F
R222	1-249-431-11	CARBON	15K 5% 1/4W	R452	1-249-435-11	CARBON	33K 5% 1/4W
R223	1-249-425-11	CARBON	4.7K 5% 1/4W F	R453	1-249-437-11	CARBON	47K 5% 1/4W
R224	1-249-428-11	CARBON	8.2K 5% 1/4W F	R454	1-247-872-11	CARBON	51K 5% 1/4W
R225	1-247-882-11	CARBON	130K 5% 1/4W	R455	1-247-862-11	CARBON	20K 5% 1/4W
R226	1-247-866-11	CARBON	30K 5% 1/4W	R456	1-247-866-11	CARBON	30K 5% 1/4W
R229	1-249-429-11	CARBON	10K 5% 1/4W	R457	1-247-872-11	CARBON	51K 5% 1/4W
R230	1-249-432-11	CARBON	18K 5% 1/4W	R458	1-249-405-11	CARBON	100 5% 1/4W F
R231	1-247-885-00	CARBON	180K 5% 1/4W	R459	1-249-381-11	CARBON	1 5% 1/4W F
R241	1-249-421-11	CARBON	2.2K 5% 1/4W F	R460	1-249-381-11	CARBON	1 5% 1/4W F
R242	1-249-428-11	CARBON	8.2K 5% 1/4W F	R461	1-249-425-11	CARBON	4.7K 5% 1/4W F
R243	1-247-840-00	CARBON	2.4K 5% 1/4W	R462	1-249-435-11	CARBON	33K 5% 1/4W
R244	1-249-433-11	CARBON	22K 5% 1/4W	R463	1-249-437-11	CARBON	47K 5% 1/4W
R245	1-249-417-11	CARBON	1K 5% 1/4W F	R464	1-247-872-11	CARBON	51K 5% 1/4W
R300	1-249-405-11	CARBON	100 5% 1/4W F	R465	1-247-862-11	CARBON	20K 5% 1/4W
R301	1-249-421-11	CARBON	2.2K 5% 1/4W F	R466	1-247-866-11	CARBON	30K 5% 1/4W
R302	1-249-405-11	CARBON	100 5% 1/4W F	R467	1-247-872-11	CARBON	51K 5% 1/4W
R303	1-249-422-11	CARBON	2.7K 5% 1/4W F	R468	1-249-405-11	CARBON	100 5% 1/4W F
R352	1-249-393-11	CARBON	10 5% 1/4W F	R469	1-249-381-11	CARBON	1 5% 1/4W F
R400	1-249-389-11	CARBON	4.7 5% 1/4W F	R470	1-249-381-11	CARBON	1 5% 1/4W F
R401	1-249-429-11	CARBON	10K 5% 1/4W	R471	1-249-429-11	CARBON	10K 5% 1/4W
R402	1-247-903-00	CARBON	1M 5% 1/4W	R472	1-249-425-11	CARBON	4.7K 5% 1/4W F
R403	1-247-895-00	CARBON	470K 5% 1/4W	R473	1-249-434-11	CARBON	27K 5% 1/4W
R404	1-247-895-00	CARBON	470K 5% 1/4W	R474	1-249-429-11	CARBON	10K 5% 1/4W
R405	1-249-408-11	CARBON	180 5% 1/4W F	R476	1-249-425-11	CARBON	4.7K 5% 1/4W F
R406	1-249-408-11	CARBON	180 5% 1/4W F	R477	1-249-434-11	CARBON	27K 5% 1/4W
R407	1-249-410-11	CARBON	270 5% 1/4W F				
R408	1-247-812-11	CARBON	160 5% 1/4W				
R409	1-247-812-11	CARBON	160 5% 1/4W				
R410	1-247-816-11	CARBON	240 5% 1/4W				
R411	1-247-812-11	CARBON	160 5% 1/4W				
R412	1-249-411-11	CARBON	330 5% 1/4W				
R413	1-249-429-11	CARBON	10K 5% 1/4W				
R414	1-249-429-11	CARBON	10K 5% 1/4W				
R415	1-249-421-11	CARBON	2.2K 5% 1/4W F				
R416	1-249-421-11	CARBON	2.2K 5% 1/4W F				
R417	1-249-437-11	CARBON	47K 5% 1/4W				
R418	1-249-429-11	CARBON	10K 5% 1/4W				
R420	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R422	1-249-425-11	CARBON	4.7K 5% 1/4W F				
R423	1-249-429-11	CARBON	10K 5% 1/4W				

&lt; VARIABLE RESISTOR &gt;

&lt; VIBRATOR &gt;

RV101 1-230-496-11 RES. ADJ. CARBON 10K

RV201 1-230-496-11 RES. ADJ. CARBON 10K

X401 1-577-358-21 VIBRATOR, CERAMIC

\* 1-646-887-11 TC PANEL (A) BOARD

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&lt; CONNECTOR &gt;

CN451 1-568-442-11 SOCKET, CONNECTOR 9P



# TC PANEL (A)

# TC PANEL (B)

Ref. No.	Part No.	Description	Remark
D481	8-719-313-65	DIODE SEL2410E-TH10	
D482	8-719-301-49	LED SEL2810A	
D483	8-719-301-49	LED SEL2810A	
		< DIODE >	
R481	1-249-407-11	CARBON 150 5% 1/4W F	
R482	1-249-409-11	CARBON 220 5% 1/4W F	
R483	1-249-415-11	CARBON 680 5% 1/4W F	
R484	1-249-417-11	CARBON 1K 5% 1/4W F	
R485	1-249-426-11	CARBON 5.6K 5% 1/4W	
R486	1-249-430-11	CARBON 12K 5% 1/4W	
		< SWITCH >	
S401	1-554-303-21	SWITCH, TACTILE (STOP)	
S402	1-554-303-21	SWITCH, TACTILE (▶)	
S403	1-554-303-21	SWITCH, TACTILE (◀)	
S404	1-554-303-21	SWITCH, TACTILE (◄)	
S405	1-554-303-21	SWITCH, TACTILE (►)	
S406	1-572-269-11	SWITCH, SLIDE (DOLBY NR)	
S407	1-572-268-11	SWITCH, SLIDE (DIRECTION MODE)	
		*****	
*	1-646-888-11	TC PANEL (B) BOARD	
		*****	
		< CONNECTOR >	
CN452	1-568-443-11	SOCKET, CONNECTOR 13P	
		< DIODE >	
D491	8-719-301-37	LED SEL2210S-CD	
D492	8-719-301-49	LED SEL2810A	
D493	8-719-313-65	DIODE SEL2410E-TH10	
D494	8-719-301-49	LED SEL2810A	
D495	8-719-301-49	LED SEL2810A	
D496	8-719-301-37	LED SEL2210S-CD (D309)	
D497	8-719-301-37	LED SEL2210S-CD	
D498	8-719-301-37	LED SEL2210S-CD	
		< RESISTOR >	
R490	1-249-407-11	CARBON 150 5% 1/4W F	
R491	1-249-409-11	CARBON 220 5% 1/4W F	
R492	1-249-411-11	CARBON 330 5% 1/4W F	
R493	1-249-413-11	CARBON 470 5% 1/4W F	
R494	1-249-411-11	CARBON 330 5% 1/4W	
R495	1-249-413-11	CARBON 470 5% 1/4W F	
R496	1-249-415-11	CARBON 680 5% 1/4W F	
R497	1-249-417-11	CARBON 1K 5% 1/4W F	

Ref. No.	Part No.	Description	Remark
R498	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R499	1-249-424-11	CARBON 3.9K 5% 1/4W F	
		< SWITCH >	
S451	1-554-303-21	SWITCH, TACTILE (STOP)	
S452	1-554-303-21	SWITCH, TACTILE (PAUSE)	
S453	1-554-303-21	SWITCH, TACTILE (▶)	
S454	1-554-303-21	SWITCH, TACTILE (◀)	
S455	1-554-303-21	SWITCH, TACTILE (REC MUTE)	
S456	1-554-303-21	SWITCH, TACTILE (◄)	
S457	1-554-303-21	SWITCH, TACTILE (►)	
S458	1-554-303-21	SWITCH, TACTILE (REC)	
S459	1-554-303-21	SWITCH, TACTILE (DUBBING SPEED HIGH)	
S460	1-554-303-21	SWITCH, TACTILE (DUBBING SPEED NORMAL)	
S461	1-554-303-21	SWITCH, TACTILE (D309) (CD SYNCHRO)	
		*****	
		MISCELLANEOUS	
		*****	
		1-575-001-11 WIRE, FLAT TYPE (12 CORE)	
		1-638-983-11 PC BOARD, MOTOR FLEXIBLE	
		1-696-634-21 WIRE (FLAT TYPE) (22 CORE)	
Δ	8-848-144-11	DEVICE, OPTICAL KSS-240A	
56	1-751-209-11	WIRE (FLAT TYPE) (9 CORE)	
64	1-590-574-11	WIRE, FLAT TYPE (7 CORE)	
65	1-590-485-11	WIRE, FLAT TYPE (7 CORE)	
69	1-690-729-11	WIRE, FLAT TYPE (27 CORE)	
71	1-690-589-31	WIRE, FLAT TYPE (13 CORE) (D309:AUS)	
71	1-751-210-11	WIRE (FLAT TYPE) (13 CORE) (D209/D309: AEP, UK, E, G, IT, EE, EA, MY, SP, CIS)	
* 161	1-452-538-11	MAGNET	
HP901	A-2009-838-A	DECK ASSY, HEAD (DECK A)	
HRP901A	2004-190-A	DECK ASSY, HEAD (DECK B)	
IC302	8-759-604-95	IC MSF79M07	
M101	X-4917-523-3	BASE (OUTSERT) ASSY (SPINDLE MOTOR)	
M901	X-3359-417-1	MOTOR ASSY (CAPSTAN)	
M902	X-3363-501-1	MOTOR ASSY (REEL)	
Q302	8-729-209-15	TRANSISTOR 2SD2012	
		*****	
		ACCESSORIES & PACKING MATERIALS	
		*****	
* 10	3-703-713-41	STICKER, SONY SYMBOL (10) (D209:AUS/D309:UK, AUS)	
* 5	4-941-548-01	LABEL, CLASS 1	
*	4-957-503-01	INDIVIDUAL CARTON (D209:AEP, IT)	
*	4-958-606-01	CUSHION (D209:AEP, IT)	
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Ref. No.	Part No.	Description	Remark
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**HARDWARE LIST**  
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| #1 | 7-685-646-79 | SCREW +BVTP 3X8 TYPE2 N-S |  |
| #2 | 7-621-775-10 | SCREW +B 2.6X4            |  |
| #6 | 7-621-255-15 | SCREW +P 2X3              |  |
| #7 | 7-621-775-00 | SCREW +B 2.6X3            |  |
| #8 | 7-627-556-08 | SCREW +P 2.6X2.8          |  |